

No. 14,734

In the

# United States Court of Appeals For the Ninth Circuit

ALBERT A. ARVIDSON, et al, *Appellants*,

vs.

REYNOLDS METALS COMPANY, a corporation, *Appellee*.

W. J. WHITEAKER, et al, *Appellants*,

vs.

REYNOLDS METALS COMPANY, a corporation, *Appellee*.

## APPELLEE'S BRIEF

Appeals from Final Judgments of the United States  
District Court for the Western District of  
Washington, Southern Division

HONORABLE GEORGE H. BOLDT, Judge

KING, MILLER, ANDERSON, NASH & YERKE  
FREDRIC A. YERKE, JR.

926 American Bank Bldg., Portland, Oregon

HENDERSON, CARNAHAN, THOMPSON & GORDON  
LINDSAY L. THOMPSON

Puget Sound Bank Bldg., Tacoma, Washington  
*Attorneys for Appellees*

WALTER L. RICE  
W. TOBIN LENNON

Reynolds Metals Bldg., Richmond, Virginia  
*Of Counsel for Appellees*

SCHAFER, CRONAN & NELSON  
JAMES P. CRONAN, JR.

803 Public Service Bldg., Portland, Oregon

PAUL M. REEDER  
Commercial Bldg., Hillsboro, Oregon  
*Attorneys for Appellants*

EISENHOWER, HUNTER, RAMSDELL & DUNCAN  
Puget Sound Bank Bldg., Tacoma, Washington  
*Of Counsel for Appellants*

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# INDEX

PAGE

|  |    |
|--|----|
| Statement of the Cases .....   | 1  |
| Questions Involved .....   | 7  |
| Summary of Argument .....  | 9  |
| Argument .....   | 11 |
| I. Fluorides in particulate form emanating from appellee's aluminum reduction plants did not settle upon appellants' properties. Even if such fluorides did settle upon appellants' properties, remanding of these actions to the trial court would not be warranted .....   | 11 |
| A. Appellants failed to sustain the burden of proving that fluorides in particulate form settled upon their properties as a result of appellee's operation .....   | 12 |
| B. Even if appellants proved that fluorides in particulate form emanating from appellee's aluminum reduction plants settled upon appellants' properties, the court must weigh the relative convenience and inconvenience to the parties in determining whether the actions should be remanded to the trial court ..... | 23 |
| C. The hardships to appellee and the public should injunctive relief be granted exceed the alleged benefits which would accrue to the appellants from the granting of such relief .....  | 24 |
| II. Appellants' cattle were not injured as the result of appellee's operation of the aluminum reduction plants. Even if appellants' cattle were so injured, remanding of these actions to the trial court would not be warranted .....   | 28 |
| A. Appellants failed to sustain the burden of proving that their cattle were injured as a result of appellee's operation of said plants .....  | 28 |
| 1. Appellants failed to sustain the burden of proving that their cattle were injured.....  | 30 |
| 2. Appellants failed to sustain the burden of proving that the proximate cause of any injuries to their cattle was appellee's operation of the plants .....  | 70 |

# INDEX—Continued

PAGE

|  |     |
|--|-----|
| B. Even if appellee's operation of said plants was the proximate cause of injuries to appellants' cattle, the court may not award damages to appellants unless the gravity of the harm to appellants outweighs the utility of appellee's conduct ..... | 82  |
| C. The utility of appellee's conduct outweighs the gravity of the harm, if any, to appellants .....  | 89  |
| III. The claims of appellants were subject to a two-year limitation period. Even if appellants' claims were subject to a three-year limitation period, remanding of these actions to the trial court would not be warranted .....                      | 89  |
| A. The claims of appellants were subject to a two-year limitation period .....   | 90  |
| 1. R.C.W. 4.16.130 applied to appellants' claims of damage to real property .....  | 92  |
| 2. R.C.W. 4.16.130 applied to appellants' claims of damage to personality .....  | 105 |
| B. Unless the court finds that appellants were injured as a result of the operation of the plants, determination of the applicable limitation is moot .....  | 109 |
| Conclusion .....   | 110 |

# CITATIONS

## CASES

PAGE

|  |          |
|--|----------|
| Amphitheaters, Inc, v. Portland Meadows, (1948) 184 Or. 336,<br>198 P(2d) 847 .....            | 88       |
| Appeal of Beardsley (1910), 83 Conn. 34, 75 Atl. 141 .....                                     | 100      |
| Bartlett v. Grasselli Chemical Co., (1922) 92 W. Va. 445, 115,<br>S.E. 451 .....               | 98       |
| Booth v. Rome, W. & O. T. R. Co., (1893) 140 N.Y. 267, 35<br>N.E. 592 .....                    | 86       |
| Bourne v. Wilson-Case Lumber Co., (1911) 58 Or. 48, 113<br>Pac. 52 .....                       | 98       |
| Brown v. Jones, (1929) 130 Or. 424, 433, 278 Pac. 981.....                                     | 105      |
| Clark Lloyd Lumber Co. v. Puget Sound & C. Ry. Co., (1916)<br>92 Wash. 601, 159 Pac. 774 ..... | 101, 107 |
| Clifton Iron Co., v. Dye, (1889) 87 Ala. 192, 6 So. 192 .....                                  | 24       |
| Columbian Carbon Co. v. Tholen, (Tex., 1947) 199 S.W.(2d)<br>825 .....                         | 98       |
| East St. Johns Shingle Co. v. City of Portland, (1952) 195 Or.<br>505, 246 P.(2d) 554 .....    | 87       |
| Fraser v. Aluminum Company of America, (W. D. Wash., S.<br>D., 1950), Civil No. 1,223 .....    | 94, 107  |
| Grace Bros. v. Commissioner of Internal Revenue, (CA 9, 1949)<br>173 F.(2d) 170 .....          | 14       |
| Gray v. Harris & Son, (1939) 200 Wash. 181, 93 P.(2d) 385 ....                                 | 101      |
| Irwin v. J. K. Lumber Co., (1922) 119 Wash. 158, 205 Pac. 424..                                | 108      |
| Kerr et al v. Reynolds Metals Co., (D. Or., 1950) Civil No.<br>4,123 .....                     | 104      |
| Lewis Mach. Co. v. Aztec Lines, (CA 7, 1949) 172 F.(2d) 746..                                  | 15       |
| Lindley v. Hyland, (1943) 173 Or. 93, 144 P.(2d) 295 .....                                     | 98       |
| Luellen v. City of Aberdeen, (1944) 20 Wash. (2d) 594, 148<br>P.(2d) 849 .....                 | 107      |
| McCallister et al v. Reynolds Metals Co., (D. Or., 1950) Civil<br>No. 4,418 .....              | 104      |

# CASES—Continued

PAGE

|   |              |
|---|--------------|
| Messinger v. Anderson, (1912) 225 U.S. 436, 56 L. Ed. 1152....  | 100          |
| Minto v. Salem Water, L. & P. Co., (1926) 120 Or. 202, 250<br>Pac. 722 .....  | 24           |
| Noble v. Martin, (1937) 191 Wash. 38, 70 P.(2d) 1064 .....  | 109          |
| Northern Grain & Warehouse Co. v. Holst, (1917) 95 Wash.<br>312, 163 Pac. 775 .....                                     | 105          |
| Northern Indiana Public Service Co. v. W. J. & M. S. Vesey,<br>(1936) 210 Ind. 338, 200 N.E. 620 .....                  | 98           |
| Park v. Northport Smelting & Refining Co., (1907) 47 Wash.<br>597, 92 Pac. 442 .....                                    | 96           |
| Perrin v. Aluminum Company of America and Thayer, (W.<br>D. Wash., S. D., 1950) Civil No. 1,352 .....                   | 93, 105, 107 |
| Polson Logging Co. v. United States, (C.C.A. 9th, 1947) 160<br>F(2d) 712 .....  | 100          |
| Powell v. Superior Portland Cement, Inc., (1942) 15 Wash.<br>(2d) 14, 129 P.(2d) 536 .....                              | 84           |
| Riblet v. Spokane-Portland Cement Co., (1952) 41 Wash. (2d)<br>249, 248 P.(2d) 380 .....                                | 83, 94       |
| Rose vs. Socony-Vacuum Corporation, (1934) 54 R. I. 411, 173<br>Atl. 627 .....  | 87           |
| Soukoup v. Republic Steel Corporation, (Ohio, 1946) 66 N.E.<br>(2d) 334 .....   | 85           |
| Sterett v. Northport Mining & Smelting Co., (1902) 30 Wash.<br>164, 70 Pac. 266 .....                                   | 96           |
| Suter v. Wenatchee Water Power Co., (1904) 35 Wash. 1, 76<br>Pac. 298 .....   | 97           |
| Ure v. United States, (D. Or., 1950), 93 F. Supp. 779 .....   | 103          |
| United States v. Fullard-Leo, (C.C.A. 9th, 1946) 156 F. (2d)<br>756; affirmed (1946) 331 U.S. 256, 91 L. Ed. 1474 ..... | 100          |
| Welch v. Seattle & Montana R. Co., (1909) 56 Wash. 97, 105<br>Pac. 166 .....  | 101          |
| Weller v. Snoqualmie Falls Lumber Co., (1930) 155 Wash. 526,<br>285 Pac. 446 .....                                      | 95           |

## TEXTBOOKS

PAGE

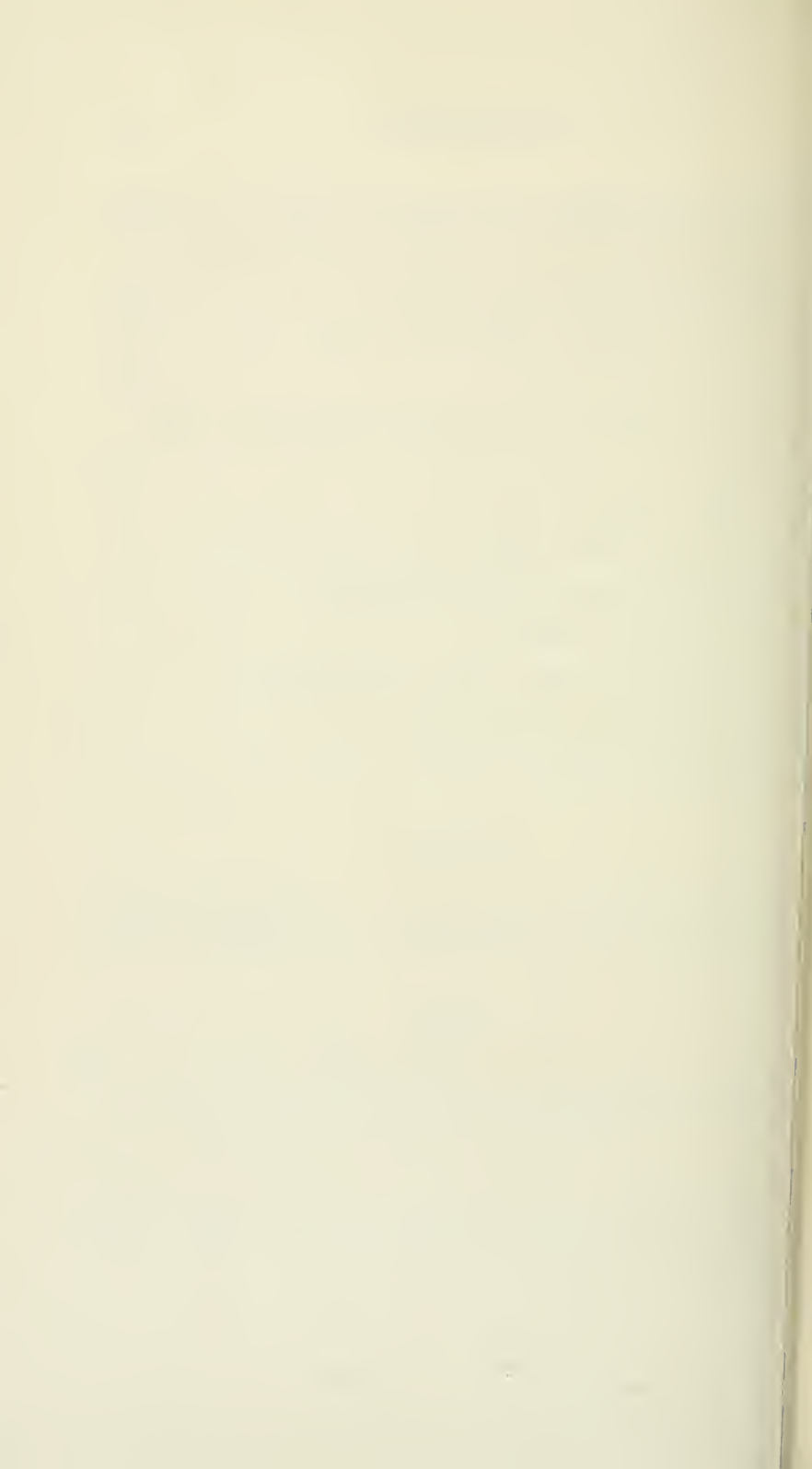
|   |        |
|---|--------|
| 1 American Law Institute, Restatement of the Law of Torts,<br>(1934) Section 158 .....                      | 103    |
| 4 American Law Institute, Restatement of the Law of Torts,<br>(1939), Sections 822, 826, pp. 226, 241 ..... | 83, 88 |
| 28 Am. Jur., Injunctions, Section 141, p. 330 .....   | 24     |
| 52 Am. Jur., Trespass, p. 844 .....   | 104    |
| 2 Barron and Holtzoff, Federal Practice and Procedure (1950),<br>p. 834 .....                               | 15     |
| 63 C. J. 899, Trespass, § 4.....  | 92     |
| 21 C. J. S. Courts, Section 195c, p. 341 .....  | 100    |
| 53 C. J. S., Limitation of Actions, Section 27, p. 970 .....  | 91     |
| 87 C. J. S., Trespass, Section 13 .....   | 104    |
| High on Injunctions, (3rd ed., 1890) § 739 p. 566 .....   | 92     |
| Joyce Law of Nuisances, (1906), p. 27 .....   | 92     |
| Prosser on Torts, Section 73, p. 580 .....  | 88     |

## STATUTES

|  |                      |
|--|----------------------|
| R.C.W. 4.16.080 (R.R.S., Section 159) .....  | 6, 91, 106, 107, 108 |
| R.C.W. 4.16.130, (R.R.S., Section 165) ..... | 6, 89, 91, 106, 107  |

## RULES

|  |    |
|--|----|
| Rule 52(a), Federal Rules of Civil Procedure ..... | 14 |
|--|----|





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**APPELLEE'S BRIEF**

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Appeals from Final Judgments of the United States District Court  
for the Western District of Washington, Southern Division

HONORABLE GEORGE H. BOLDT, Judge

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**STATEMENT OF THE CASES**

Because the Statement of the Cases set forth in Appellants' Brief (pp. 2-12) is both incomplete and argumentative, the following statement is submitted to the court:

**Arvidson Action.** During 1941 and 1942, the Aluminum Company of America constructed the Troutdale aluminum reduction plant for the United States of America and operated the same as lessee from May 20, 1942, to September 7, 1945. Said plant was not operated from September 7, 1945, to September 23, 1946. Appellee commenced operating said plant on September 23, 1946, and operated the same, as a lessee, continuously thereafter except for brief periods when operations were curtailed because of flood conditions and labor difficulties (R-I-14, 20).

No fume control or collection system was present in the plant during the 3½ years it was operated by the Aluminum Company of America. Before appellee commenced operating the plant on September 23, 1946, appellee installed water pipes, spray heads and baffles to precipitate a portion of the gases, fumes and particulates, including fluorides, otherwise passing through the vents in the roof. This system collected approximately 62 per cent of the fluorides which otherwise would have escaped from the plant. On or about June 1, 1949, appellee commenced the construction of a different system at said plant which was completed on or about November 3, 1950. This system consists of hoods for all pots in said plant, the connection thereof to an induced-draft system for the removal of gases, fumes

and particulates from said pots; dust collectors and wash towers for the capture of the gases, fumes and particulates passing into the induced-draft system before the release thereof into the air; and roof scrubbers for the capture of gases, fumes and particulates not drawn into the induced-draft system and for washing of the same. The new system collects approximately 90 per cent of the fluorides which otherwise would escape from the plant (R-I-24-26).

December 6, 1950, the Arvidson appellants filed a complaint in which they alleged that they resided near Camas and Washougal, in Clark County, Washington, and that their personal and real properties situated in said area had been damaged as a result of appellee's operation of the Troutdale aluminum reduction plant (R-I-2-5, 112). The original 24 plaintiffs were engaged in dairy and/or beef operations. The parties stipulated in the pretrial order (paragraphs XXI and XXII, R-I-52, 55) that the claims of 5 additional persons might be considered by the court. At the time that the trial commenced, therefore, 14 farms were involved. At the conclusion of plaintiffs' case the court, upon defendant's motion, dismissed the action as to plaintiffs Lee M. Miller and Della B. Miller for lack of evidence (R-IX-2559).

Some of the appellants owned or leased the farms involved prior to the construction of the Troutdale plant. Others of the appellants commenced occupying their properties only after appellee's operation of said plant commenced (R-I-26-54).

The Arvidson appellants contended (1) that they were entitled to recover \$200,000 in damages for alleged injuries to vegetation and animals and \$350,000 in damages for alleged depreciation in the value of their real properties; and (2) that appellee should be enjoined from operating said plant until measures were taken to prevent the escape of fluorides therefrom (R-I-69, 71).

**Whiteaker Action.** During 1941 and 1942 appellee constructed the Longview aluminum reduction plant (R-I-140). Appellee commenced operating said plant in 1941 and operated the same continuously thereafter except for a period commencing on June 5, 1947, and ending on March 11, 1948, when operations ceased because of economic conditions (R-I-147-148).

Until 1946 said plant was operated without any fume collection devices. In 1946 and 1947 4 vertical wash towers were installed at each potline building. In 1948 and 1949 4 additional towers were installed at each potline building. These towers were designed to

precipitate the gases, fumes and particulates otherwise emanating from said buildings (R-I-149-151).

November 12, 1952, the Whiteaker appellants filed a complaint in which they alleged that they resided near Longview and Kelso, in Cowlitz County, Washington, and that their personal and real properties situated in said area had been damaged as a result of appellee's operation of the Longview plant (R-I-118-121, 216). The 10 plaintiffs were engaged in operating 4 dairy farms, 3 of which are situated south of Kelso, Washington. The other farm is west of the Longview plant (R-I-152-189). Plaintiffs Rawnsley and Josephson purchased the properties occupied by them prior to the construction of said plant (R-I-172, 184). Plaintiffs Goldsmith have rented the property being occupied by them since 1947 (R-I-181). Plaintiffs Whiteaker purchased the property being occupied by them in 1948 (R-I-152).

The Whiteaker appellants contended (1) that they were entitled to recover \$150,000 in damages for alleged injuries to vegetation and animals and loss of profits and \$175,000 in damages for alleged depreciation in the value of their real properties; and (2) that appellee should be enjoined from operating said plant until measures were taken to prevent the escape of fluorides therefrom (R-I-191, 193).

**Pre-Trial Proceedings.** August 31, 1953, the court ordered the Arvidson and Whiteaker actions consolidated for pre-trial and trial (R-I-216).

R.C.W. 4.16.080 (R.R.S., Section 159) provides in part as follows:

“Within three years:

“(1) An action for waste or trespass upon real property;

“(2) An action for taking, detaining, or injuring personal property, including an action for the specific recovery thereof, or for any other injury to the person or rights of another not hereinafter enumerated;”

R.C.W. 4.16.130 (R.R.S., Section 165) provides in part as follows:

“An action for relief not herein otherwise provided for shall be commenced within two years after the cause of action accrued.”

Prior to trial, and after argument on the matter, the court held that appellants' claims were subject to the two year limitation period set forth in R.C.W. 4.16.130 (R.R.S., Section 165) (R-I-96-97, 114, 217).

Pre-trial orders were settled prior to the commencement of trial (R-I-14, 140).

**Decision of Trial Court.** Following the trial of the two actions and on October 19, 1954, the trial court



filed a written opinion setting forth the court's conclusions concerning the issues presented in the actions (R-I-84-102). Thereafter, findings of fact and conclusions of law and judgments were entered in the actions based upon the court's opinion (R-I-102-A-104, 208-A-210). The court found:

(1) Appellee had not trespassed upon appellants' properties;

(2) Appellee's operation of the Troutdale and Longview aluminum plants did not constitute a nuisance; and

(3) Appellants were not entitled to injunctive relief.

### **QUESTIONS INVOLVED**

In the Statement of Points set forth in their Designation of Contents of Record on Appeal and Statement of Points, appellants contend that the findings of fact XXVI, XXVII, XXVIII, XXIX and XXX and conclusions of law III, IV and V in the Arvidson action and findings of fact XVI, XVII, XVIII, XIX and XX and conclusions of law II, III, IV and V in the Whiteaker action were erroneous (R-I-102-C-102-F, 208-B-208-D, 222-224). The questions involved on this appeal are:

(1) Should these actions be remanded to the trial court because the court did not find that fluorides in particulate form emanating from appellee's

aluminum reduction plants settled upon appellant's properties?

(2) Should these actions be remanded to the trial court because the court found that appellants' cattle had not been injured by consuming forage containing fluorine as the result of the settling of fluorides from appellee's aluminum reduction plants upon such forage?

(3) Should these actions be remanded to the trial court because of the court's decision that under the substantive law of the State of Washington a two year limitation period is applicable to claims of damage to real and personal properties assertedly caused by the deposition of air-borne fluorides escaping from an aluminum reduction plant?

While appellants contended in the Statement of Points set forth in their Designation of Contents of Record on Appeal and Statement of Points that the court erroneously found that appellants' real properties did not depreciate in value as a result of appellee's operation of the aluminum reduction plants, appellants do not mention this matter in their brief, and, therefore, no question is involved on this particular point.



## SUMMARY OF ARGUMENT

I. Fluorides in particulate form emanating from appellee's aluminum reduction plants did not settle upon appellants' properties. Even if such fluorides did settle upon appellants' properties, remanding of these actions to the trial court would not be warranted.

A. Appellants failed to sustain the burden of proving that fluorides in particulate form settled upon their properties as a result of appellee's operation.

B. Even if appellants proved that fluorides in particulate form emanating from appellee's aluminum reduction plants settled upon appellants' properties, the court must weigh the relative convenience and inconvenience to the parties in determining whether the actions should be remanded to the trial court.

C. The hardships to appellee and the public should injunctive relief be granted exceed the alleged benefits which would accrue to appellants from the granting of such relief.

II. Appellants' cattle were not injured as the result of appellee's operation of the aluminum reduction plants. Even if appellants' cattle were so injured, re-

manding of these actions to the trial court would not be warranted.

A. Appellants failed to sustain the burden of proving that their cattle were injured as a result of appellee's operation of said plants.

1. Appellants failed to sustain the burden of proving that their cattle were injured.

2. Appellants failed to sustain the burden of proving that the proximate cause of any injuries to their cattle was appellee's operation of the plants.

B. Even if appellee's operation of said plants was the proximate cause of injuries to appellants' cattle, the court may not award damages to appellants unless the gravity of the harm to appellants outweighs the utility of appellee's conduct.

C. The utility of appellee's conduct outweighs the gravity of the harm, if any, to appellants.

III. The claims of appellants were subject to a two year limitation period. Even if appellants' claims were subject to a three year limitation period, remanding of these actions to the trial court would not be warranted.

A. The claims of appellants were subject to a two year limitation period.

B. Unless the court finds that appellants were injured as a result of the operation of the plants

determination of the applicable limitation period is moot.

## ARGUMENT

### I.

**Fluorides in particulate form emanating from appellee's aluminum reduction plants did not settle upon appellants' properties. Even if such fluorides did settle upon appellants' properties, remanding of these actions to the trial court would not be warranted.**

Fluorides are used in the production of aluminum (R-III-32). "Fluorides" result from the combination of fluorine with other chemical elements. Fluorides are in the form of gases, liquids or solids (R-I-55, 189). Some fluorides escape from the aluminum reduction plants operated by appellee at Troutdale and Longview. Pure fluorine has never escaped from said plants (R-I-55, 189; III-33). Appellants contend that the proof in these actions shows that fluorides in particulate or solid form (as distinguished from gaseous fluorides) emanating from said plants settled upon appellants' properties during the period for which damages are sought.

**A. Appellants failed to sustain the burden of proving that fluorides in particulate form settled upon their properties as a result of appellee's operations.**

Inasmuch as appellants contend that fluoride particulates from appellee's plants settled upon their properties, appellants have the burden of proving the same. The trial court recognized that appellants failed to establish this fact by a preponderance of the evidence. Because of the state of the evidence on this point, the trial court was unable to determine not only the *character*, but also the *amount*, if any, of the fluorine in the forage growing on the property of appellants which was attributable to appellee's operations. The trial court's comment on this phase of the actions as set forth in a written decision was as follows (R-I-92):

"A fair inference from a full consideration of the evidence on this phase of the case is that some part of the fluorine found in the forage at points within the vicinity of plaintiffs' farms during the period in question in these cases is attributable to fluorides escaping from defendant's plants, but the amount *and character thereof* is a matter of speculation and cannot be determined with any degree of certainty. In all probability some areas in the near vicinity of the plants receive deposits of particulates or solids in a minute and powdery form so fine as not to be observable even by scientific methods. *There is no evidence in the record indicating that direct observation of solid deposits have been made on plaintiff farms or at any other place*

*as distant from the plants as the nearest of plaintiffs' farms.*

"A further factor complicating the matter is the necessity of using test data from samples gathered at more or less infrequent intervals at scattered points and attempting to draw inferences from *averages* of such data as to particular properties not precisely at a sampling station. It is apparent from the data itself that rather wide variations occur geographically climatically and by season. When all of these matters are considered it can be seen that *any specific finding of fluorine content in forage on the particular property of any plaintiff must very largely if not wholly be a matter of speculation and conjecture.*" (Emphasis added)

Thereafter the trial court entered a finding in the Arvidson action which provided as follows (R-I-102-C):

"All forage contains some fluorine. The court is not able to determine the amount of the fluorine, if any, in the forage growing on plaintiffs' farms which was attributable to the settling upon said farms between December 7, 1948, and November 4, 1953, of fluorides escaping from defendant's Troutdale aluminum reduction plant."

and a conclusion based upon such finding that (R-I-102-F):

"Plaintiffs did not sustain the burden of producing a preponderance of credible evidence to establish \* \* \* (b) substantial fluorine contents in forage attributable to effluents from defendant's plants;"

The court entered a similar finding in the Whiteaker action (R-I-208-B):

“All forage contains some fluorine. The court is not able to determine the amount of the fluorine, if any, in the forage growing on plaintiffs’ farms which was attributable to the settling upon said farms between November 12, 1950, and November 4, 1953 of fluorides escaping from defendant’s Longview aluminum reduction plant.”

and a similar conclusion (R-I-208-D):

“Plaintiffs did not sustain the burden of producing a preponderance of credible evidence to establish \* \* \* (b) substantial fluorine content in forage attributable to effluents from defendant’s plants;”

Of course, the foregoing findings of fact will not be set aside unless “clearly erroneous.”

#### **Rule 52 (a), Federal Rules of Civil Procedure**

“Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses.”

The burden is upon appellants to show that these findings are “clearly erroneous.” The burden is upon him who attacks a finding to show that it is “clearly erroneous.”

*Grace Bros. v. Commissioner of Internal Revenue*  
(CA 9, 1949) 173 F. (2d) 170, 174



Findings of fact are not "clearly erroneous" unless unsupported by substantial evidence or clearly against the weight of the evidence or induced by an erroneous view of the law. The mere fact that on the same evidence the appellate court might reach a different result does not justify it in setting these findings aside. The appellate court does not consider and weigh the evidence de novo.

2 Barron and Holtzoff, Federal Practice and Procedure (1950), p. 834

In considering whether these findings are "clearly erroneous," the appellate court looks only to the evidence most favorable to said findings and such reasonable inferences as may be drawn from such evidence.

*Lewis Mach. Co. v. Aztec Lines* (CA 7, 1949) 172 F. (2d) 746

A summary of the evidence bearing directly on the matter in dispute follows:

**Arvidson Action.** The best evidence as to whether or not any fluorides were deposited upon appellants' real properties during the period for which damages are claimed are vegetation samples taken during the period and analyzed for the purpose of determining the fluorine content of the same in parts per million.

“Parts per million is a way of expressing extremely small amounts. If you were to express it in percentage you would have a decimal point and a lot of zeros. One part per millions means one pound in a million pounds, one gallon in a million gallons, one cubic foot in a million cubic feet, one unit of whatever you express to it. The expressable unit here is on a weight to weight basis and you could express it, one part per million could mean one milligram in a million milligrams, or one pound in a million pounds, one part in a million, literally as it indicates.” (R-III-43)

The only vegetation samples taken on appellants' properties and introduced in evidence at the trial were those taken by appellee. These samples were taken from appellants' farms as examinations of appellant's cattle were made. The following samples taken on the following dates upon farms owned by the following appellants, upon analysis, showed the following amounts of fluorine:



| <i>Appellant</i>                 | <i>Sample Date</i> | <i>Type</i>                                       | <i>Fluorine Content<br/>(Parts Per Million)</i> |                             |
|----------------------------------|--------------------|---|---|-----------------------------|
| Albert A. and<br>Cherie Arvidson | 10-26-53           | Grass near barn.                                  | 21  |                             |
|                                  |                    | Grass in pasture<br>S of barn.                    | 16  | (Ex. 1492-A)                |
| Brandt                           | 10-28-53           | Grass.  | 22  | (Ex. 1492-D)                |
| Depoe                            | 10-28-53           | Grass in pasture<br>E of barn.                    | 13  |                             |
|                                  |                    | Grass 300 yards<br>NW of barn.                    | 9   | (Ex. 1492-E)                |
|                                  |                    | Grass W of house                                  | 8   |                             |
| Ford                             | 10-26-53           | Grass from pas-<br>ture SW of barn.               | 13  |                             |
|                                  |                    | Grass in barnyard<br>fence row.                   | 15  | (Ex. 1492-B;<br>R-VII-1643) |
| Norelius                         | 10-26-53           | Grass in pasture<br>N of barn.                    | 9.7   |                             |
|                                  |                    | Grass in pasture<br>SE of barn.                   | 12  | (Ex. 1492-C)                |
| Robson                           | 10-28-53           | Grass near barn.                                  | 11  |                             |
|                                  |                    | Grass in pasture<br>NW of barn.                   | 8.5   |                             |
|                                  |                    | Grass in pasture<br>SE of barn.                   | 12  | (Ex. 1492-H)                |
|                                  |                    | Grass in pasture<br>½ mile S of barn.             | 12  |                             |
| Seekins                          | 10-28-53           | Grass in pasture<br>W of barn.                    | 19  | (Ex. 1492-I)                |
| Stauffer                         | 11-12-53           | Field SE of barn.<br>Hill 200 yards E<br>of barn. | 12  |                             |
|                                  |                    | Field 250 yards<br>E of barn.                     | 14  |                             |
|                                  |                    | Field 350 yards<br>NW of barn.                    | 11  | (Ex. 1492-J)                |
|                                  |                    | Field 50 yards<br>W of barn.                      | 14  |                             |
|                                  |                    |   | 15  |                             |
| Johnston                         | 10-28-53           | Grass from pas-<br>ture S of barn.                | 9.7   | (Ex. 1492-F)                |
|                                  |                    | Grass from pas-<br>ture W and NW<br>of barn.      | 11  |                             |

The fluorine values set forth in the foregoing table range from 8 to 22 parts per million. These values do not establish that the fluorine present was attributable to the settling of air-borne fluoride particulates. Harold Zeh, the chief chemist for appellee's Troutdale and Longview plants, testified that values as high as 20 to 25 parts per million could be considered as normal (R-III-42, 72). He referred to samples taken by his staff to substantiate this opinion (Ex. 1490, 1640; R-III-73). This opinion was also confirmed by the sampling of forage by personnel from the Western Washington Experiment Station at Puyallup. Location G was the control (i.e. normal) area with respect to sampling in the vicinity of the Troutdale plant (R-III-132). Yet the forage in this area at times contained 17-18 parts per million of fluorine (Ex. 20, Location G). Sampling at Locations 1 and 3 was for control purposes in the Longview area (R-III-188-190, 214). Some of the samples from Location 1 ran as high as 22-24 parts per million (Ex. 520, Location 1).

The fluorine content of the urine of cattle indicates whether or not the fluorine content of forage is above normal (R-VIII-1969; IX-2321). Urine which has a fluorine content of 5 to 10 parts per million or less indicates that the animal from which the sample is taken has been grazing on forage containing a normal

amount of fluorine (R-VIII-2017; IX-2355). The following table sets forth the *maximum* fluorine content of the only urine samples taken from animals in herds owned by the following appellants on the following dates:

| <i>Appellant</i>                | <i>Date of Sample</i> | <i>Maximum Fluorine Content (Parts Per Million)</i> |                          |
|---------------------------------|-----------------------|---|--------------------------|
| Albert A. and Cherie Arvidson   | 10-26-53              | 3.0   | (Ex. 1492-A; R-III-1642) |
| Baker                           | 8-25-53               | 5.7   | (R-I-29-30)              |
| Brandt                          | 10-28-53              | 3.7   | (Ex. 1492-D; R-III-1645) |
| Depoe                           | 10-28-53              | 3.0   | (Ex. 1492-E; R-III-1646) |
| Ford                            | 10-26-53              | 4.3   | (Ex. 1492-B; R-III-1643) |
| Isbister                        | 8-25-53               | 2.4   | (R-I-38)                 |
| Norelius                        | 10-26-53              | 2.3   | (Ex. 1492-C; R-III-1644) |
| Robson                          | 10-28-53              | 2.7   | (Ex. 1492-F; R-III-1648) |
| Seekins                         | 10-28-53              | 5.9   | (Ex. 1492-I; R-III-1649) |
| Stauffer                        | 11-12-53              | 2.3   | (Ex. 1492-J; R-III-1649) |
| Johnston                        | 10-28-53              | 2.1   | (Ex. 1492-F; R-III-1647) |
| Raymond A. and Blanche Arvidson | 9-3-53                | 8.3   | (R-I-54-55)              |

The highest fluorine content found in any of the hundreds of samples taken from August 25, 1953, to November 12, 1953, was 8.3 parts per million, which is well

within the aforesaid limits of 5 to 10 parts per million established by expert testimony without contradiction.

The foregoing analyses of urine and forage samples show that at least for a certain period in 1953 no fluorides were being deposited upon the farms of the appellants referred to above. Whether or not fluorides settled upon appellants' farms during other times is not shown by the record in view of appellants' failure to introduce proof of analyses of vegetation growing on each of the farms. This proof is not supplied by the periodic sampling of vegetation by appellee and by personnel from the Western Washington Experiment Station. Sampling was conducted by the latter institution during the period for which damages are claimed (R-I-64-67). However, almost all the samples taken were near the north shore of the Columbia River and far distant from appellants' properties. None of the samples taken by appellee during the same period was on properties occupied by appellants except for those hereinbefore referred to (R-I-56-63).

Appellants' awareness of this deficiency in proof is shown by the following statement (Appellants' Brief p. 15):

"As to Troutdale, appellee maintained 13 stations on the Washington side of the Columbia. Had the results obtained been obtained on appellants' farms instead of on the stations, the results would

have been comparable (III-79). Later Mr. Zeh explained that the testing stations had been selected by agreement for the trial because they bracketed the farms and that the station results obtained were comparable to results that would have been obtained on the farms if the distances between the two were reasonable (III-122)."

The record does not show what distance is "reasonable." Furthermore, Mr. Zeh testified on recross examination that by "comparable" he meant "the nearest comparison that you can make" (R-III-124). It does not follow, therefore, that because a sample from a particular station has a fluorine content in excess of normal the vegetation on the farm nearest to said station occupied by one of the appellants has an above normal fluorine content. Even though the samples taken and analyzed by appellee and by Western Washington Experiment Station were of some significance in this respect, on which of the farms involved herein did fluorides settle? Furthermore, were the fluorides foreign matter, i.e. particulates, or were they gaseous in nature? The state of the evidence on this point was such as to leave the trial court without a guide.

**Whiteaker Action.** Appellee did take periodic forage samples from the Rawnsley farm during the period for which damages are claimed. Similar samples were taken upon the Rawnsley farm and also the Whiteaker farm by personnel from the Western Washington

Experiment Station. Some of the samples so taken contained an above normal amount of fluorine (R-I-156-164, 175-179).

The only forage and urine samples taken on the Goldsmith farm were by appellee on October 19, 1953. The highest fluorine content of the urine samples was 5.1 parts per million (Ex. 1624; R-VII-1651). The fluorine content of the forage was 9.4 parts per million. Each of these results is within the normal range previously referred to (*supra*, p. 18).

No samples of forage were taken on the Josephson property. However, on August 4, 1953, appellee took urine samples from 12 head of cattle. The highest result was 5.3 parts per million (R-III-186). This, of course was within the normal range.

As in the Arvidson action, the foregoing evidence is the only evidence directly bearing on the question as to whether or not fluorides were deposited upon appellants' properties. The situation is the same as in the Arvidson case. The deficiency in proof leaves the matter subject to conjecture and speculation.

**B. Even if appellants proved that fluorides in particulate form emanating from appellee's aluminum reduction plants settled upon appellants' properties, the court must weigh the relative convenience and inconvenience to the parties in determining whether the actions should be remanded to the trial court.**

If the appellate court should differ with the trial court and conclude that particulate fluorides from appellee's plants settled upon appellants' properties (thus deciding that the findings of fact referred to in I. A. hereof are "clearly erroneous"), appellants contend that a trespass would be proved and the actions should be remanded for further consideration of injunctive relief (Appellants' Brief, p. 11). This contention is not sound.

If the court concludes that the settling of such particulate fluorides constituted a trespass (as incorrectly contended by appellants in their brief, p. 89), the court must apply the doctrine of comparative injury and balance the conveniences and inconveniences of the parties in order to determine the propriety of injunctive relief. Even though there is a continuing trespass, equity will weigh the relative convenience and inconvenience to the parties in determining whether injunctive relief should be granted.



**28 Am. Jur., Injunctions, Section 141, p. 330**

“Injunction against a trespass is sometimes refused because the hardship, injury, or inconvenience which it would cause the defendant is out of all proportion to the benefit it would bring to the plaintiff, and the courts have, in some instances, refrained from restraining the commission of a trespass where the injunction would result in little or no benefit to the plaintiff, and would cause great inconvenience and expense to the defendant.”

*Clifton Iron Co. v. Dye* (1889) 87 Ala. 192, 6 So. 192, 193

The effect of an injunction upon the public interest must also be considered in determining the propriety of injunctive relief against a continuing trespass.

***Minto v. Salem Water, L. & P. Co.* (1926) 120 Or. 202, 219 250 Pac. 722**

“Even though there has been a continuing trespass and a multiplicity of actions would result if the plaintiff were obliged to seek redress at law, equity will not raise its restraining arm if, by so doing, great and irreparable injury might result to the public.”

*Clifton Iron Co. v. Dye*, *supra*.

**C. The hardships to appelle and the public should injunctive relief be granted exceed the alleged benefits which would accrue to the appellants from the granting of such relief.**



The court entered the following finding in the Arvidson action (R-I-102-D):

“Defendant’s operation of the Troutdale aluminum reduction plant did not result in an unreasonable nor intentional interference with plaintiffs’ use and enjoyment of properties. The utility of defendant’s operation of said plant and the importance of the same to the economy and security of the nation far outweigh (sic) plaintiffs’ injuries, if any.”

and the following finding in the Whiteaker action (R-I-208-C):

“Defendant’s operation of the Longview aluminum reduction plant did not result in an unreasonable nor intentional interference with plaintiff’s use and enjoyment of properties. The utility of defendant’s operation of said plant and the importance of the same to the economy and security of the nation far outweigh plaintiff’s injuries, if any.”

These findings were grounded in part on the fact that a decree making further operation of the plants contingent upon the elimination of air-borne fluorides would render further operation impossible and result in a discontinuance of production of aluminum thereat. The continued production of aluminum at said plants is of vital importance to the United States, especially in view of appellee’s agreement to supply it with 200,000,000 pounds of aluminum for a 5 year period (Ex. 1322).

Moreover, the value of these plants to the communities in which each is located is obvious from the following facts which were received in evidence (R-VII-1680-1682):

“\* \* \* that said records show the following information with respect to the cost of operating the fume control system at Longview for the year 1948, \$20,575.05; for the year 1949, \$86,002.66; for the year 1950, \$121,330.04; for the year 1951, \$18,091.08; for the year 1952, \$117,399.75; for the ten months' period ended October 31, 1953, \$126,514.46, or a total from January 1, 1948, until October 31, 1953, of \$589,931.34; that the operating costs for the fume control system at Longview during the years 1946 and 1947 are not identifiable for the reason they were not kept separate from the pot room operating expenses during those two years; that the cost of operating the fume control system of the Troutdale Aluminum Reduction Plant for the year 1946 was \$2,830.02; for the year 1947, \$43,259.71; for the year 1948, \$162,756.90; for the year 1949, \$61,865.83; for the year 1950, \$129,528.83; for the year 1951, \$292,729.11; for the year 1952, \$304,801.36; for the ten month period ended October 31, 1952, \$279,795.58, for a total commencing in 1946 and ending October 31, 1953, of \$1,277,567.34; that the number of employees presently employed at the Longview Aluminum Reduction Plant is five hundred thirty-four; that the number of employees, that is salary and hourly, presently employed at the Troutdale Aluminum Reduction Plant is eight hundred fifteen; that the average annual payroll at the Longview plant is \$2,522,200.00; that the average annual payroll at the Troutdale plant is \$4,010,700.00; that the Reynolds Metal Company, the defendant herein, has paid the following real property and personal property tax

as a result of the Longview operation for the year 1948, \$118,204.15; for the year 1949, \$119,103.32; for the year 1950, \$63,246.29; for the year 1951, \$112,481.04; for the year 1952, \$88,840.32; estimated for the year 1953, \$117,153.00 for a total during the period referred to, 1948 to and including 1953, at \$619,028.12.

“That the real property and personal property taxes paid by the defendant as a result of the operation of the Troutdale Aluminum Reduction Plant has been as follows for the year 1948, \$120,901.10; for the year 1949, \$162,090.83; for the year 1950, \$197,079.41; for the year 1951, \$380,960.27; for the year 1952, \$415,027.25; estimated 1953, \$394,568.00, or a total during the period referred to commencing in 1948 and extending into the year 1953, of \$1,670,626.86.

“That the plant investments including the fume control system at Longview is in the amount of \$15,942,560.00; that the similar investments at the Troutdale plant is \$21,887,359.00; that the latter figures consists of the original construction costs to the United States Government and the additions made by the defendant Reynolds Metals Company. The actual purchase price of the Troutdale Aluminum Plant is \$9,288,708.00.”

It is thus evident that the advantages accruing from appellee's continued operation of these two plants far overshadow the trespass which appellants contend appellee committed.

## II.

**Appellants' cattle were not injured as the result of appellee's operation of the aluminum reduction plants. Even if appellants' cattle were so injured, remanding of these actions to the trial court would not be warranted.**

Appellants contend in their brief (p. 28) that their cattle "were substantially injured in fact" by appellee and that if the appellate court agrees with this contention the actions should be remanded to the trial court for determination of the quantum of damages. These contentions have no basis in fact or law.

**A. Appellants failed to sustain the burden of proving that their cattle were injured as a result of appelle's operation of said plants.**

In the Arvidson action the court found (R-I-102-D):

"Plaintiffs' cattle were not injured as a result of defendant's operation of its Troutdale aluminum reduction plant from December 7 1948, to November 4, 1953."

In the Whiteaker action the court found similarly (R-I-208-B).

The court concluded in both actions (R-I-102-F, 208-D)

"Plaintiffs did not sustain the burden of producing a preponderance of credible evidence to

establish (a) fluorine content in the forage on their lands in amounts above non toxic limits; (b) substantial fluorine content in forage attributable to effluents from defendant's plants; or (c) that plaintiffs' lands or cattle sustained fluorine damage in particulars and amounts that can be determined with reasonable or any certainty."

Appellants take issue with these findings of fact and conclusions of law.

In their brief appellants have proceeded on the theory that, if they can establish that the cattle of some of the appellants were injured by reason of appellee's operation of the two plants, then they establish appellee's liability to all appellants. This theory apparently is based upon the assumption that the actions are representative in character. The unsoundness of such assumption is apparent. The claim of each appellant must stand upon its own bottom as far as proof of liability and damages is concerned, just as though each appellant were proceeding in an individual action. This is especially true when, as here, there are differences between the individual operations involved such as geography, size, agricultural practices, types of herd, etc.

The following review of the evidence is not restricted to those appellants selected by appellants' counsel and indicates that the burden has not been satisfied as to

proof of injury and causation with respect to any of the claims.

**1. Appellants failed to sustain the burden of proving that their cattle were injured.**

**a. Fluorine in normal forage.**

The alleged cause of the alleged injury to appellants' cattle is reputedly forage containing a toxic amount of fluorine. It has already been shown that all forage contains some fluorine and that the amount of such fluorine may be as high as 25 parts per million (*supra*, p. 18).

**b. Tolerance level of cattle.**

If the court determines that the fluorine content of the pastures of some of the appellants was higher than normal during certain periods, the ultimate inquiry must be as to whether or not the amounts of fluorine in the forage were sufficient to injure an animal consuming the same. The levels testified to at the trial vary. Mr. Miller, appellants' witness, testified that the tolerance level was 30 parts per million of fluorine (R-III-233-234).

The most detailed testimony on this subject was that of Dr. Paul H. Phillips, Professor of Biochemistry at the University of Wisconsin, a specialist in the field of nutrition, and chairman of a subcommittee of the



National Research Council of the United States responsible for writing on fluorosis in livestock (R-VIII-1983, 1986, 1989). In 1928, the University of Wisconsin commenced an experiment to determine the effect of long-time feeding of rock phosphate fluorine to cattle (R-VIII-1989). Dr. Phillips became actively associated with the experiment in 1930 and carried it to completion in 1933 (R-VIII-1989, 1993). Referring to the conclusions drawn from this experiment, Dr. Phillips testified (R-VIII-1996-1998):

“Q. (Continuing) Would you advise the Court, Doctor, what the results of that experiment were with respect to lots four, five and six particularly on the growth of the animals that were involved as revealed by the experiment when it was concluded in 1933?

“A. Well, from the data that we obtained the growth was not impaired by any of these levels. That is, they were able to tolerate the fluorine in the amounts given in the form of rock phosphate without any marked effect upon growth.

“Q. That would be true both with respect to lot four and also lots five and six, is that right?

“A. That is right.

“Q. All right. Then what about the effect on milk production?

“A. There was no effect upon milk production in lot four. A slight reduction in lot five and a definite and marked decrease in lot six.

“Q. And lot four I believe you testified was the group that was receiving approximately eighty

parts per million of fluorine in the form of rock phosphate, is that right?

“A. Yes, sir.

“Q. Did you observe any signs of lameness or stiffness in any of these groups?

“A. In lot six there was lameness and stiffness.

“Q. I take from your answer there was no lameness or stiffness in lots four and five, is that right?

“A. There was definitely none in lot four. Lot five may have had one animal that was stiff.

“Q. Were you able to make any observations concerning the impact of these levels of fluorine in the form of rock phosphate upon the reproductive capacities and experience of the animals?

“A. There was no effect as far as reproduction was concerned, that is the process of reproduction itself.”

Dr. Phillips also testified that rock phosphate fluorine is half as toxic as sodium fluoride, and that the tolerance level as shown by the 1928-1933 experiment was, therefore, 30 to 40 parts per million of sodium fluoride fluorine (R.-VIII-1995, 2001). In 1951, Dr. Phillips commenced a new experiment involving the ingestion of sodium fluoride by cattle, which he characterized as

“one of the more soluble sodium salts and it is probably one that is causing damage in the industrial areas of the United States.” (R.-VIII-2000)



The cattle involved in this experiment were given varying amounts of sodium fluoride fluorine up to 50 parts per million (R-VIII-2003). His observations at the time of the trial are contained in his testimony, which may be summarized as follows (R-VIII-2007):

“Q. Will you state for the Court the observations that you have made up to the present time with respect to the effect upon the animals involved of the ingestion of the amounts of fluorine you have testified to?

“A. Well, you must realize that this experiment is still in progress and that a definite report can only be a progress report at this moment.

“First I think there has been no effect upon the mature body weight or the maintenance of body weight of these adult cattle or cattle at least in their late stages of growth just before reaching maturity. There has been no depreciation or reduction in milk production at the present moment. The calves are approximately the same in all lots indicating that reproduction is not interfered with by these levels of fluorine supplements.”

As a result of Dr. Phillips' testimony, the evidence is not in dispute that cattle may consume at least up to 50 parts per million of fluorine without injury.

Dr. Phillips' conclusions were confirmed by the work of Dr. Harold J. Schmidt, a veterinarian called by appellee. Dr. Schmidt has practiced near Modesto since 1941 and has operated his own dairy farm since

1945 (R-VII-1684). His first contact with fluorosis in cattle occurred during the operation of an aluminum reduction plant near Modesto by the Aluminum Company of America from 1943 to 1944 (R-VII-1684-1685). He has examined cattle for fluorosis at the request of the Stanford Research Institute (R-VII-1686). Since 1949, Dr. Schmidt has conducted a controlled feeding experiment involving five groups of dairy cattle. One group is for control purposes and receives approximately 7 parts per million of fluorine. The other four groups receive 30, 45, 60 and 75 parts per million, respectively, of sodium fluoride fluorine (R-VII-1689-1692). Sodium fluoride was selected as being "the most toxic inorganic solid available" (R-VII-1694). Dr. Schmidt made the following observations concerning these cattle (R-VII-1695-1696, 1698-1699):

"A. I might say that perhaps—our experiment is not completed and we are reserving conclusions until we complete the project, but I might add so far as we have gone from the standpoint of body weight and milk production, there has been no difference observed in any of the groups. We had a slight exostosis and thickening of the metatarsal bones in three of the animals of the high group.

"Q. That would be seventy-five?

"A. Seventy-five parts per million, and we have a very slight unthriftness that is not too definite, but I think it is fairly distinct in the high group.

"Q. That, once again, would be the seventy-five parts per million group.

"A. Yes.

"Q. But apparently as far as all of these groups are concerned, there has been no noticeable effect on milk production to date, is that right?

"A. That is right. I might add that the teeth do show definite fluoride effects.

"Q. What do you mean by 'fluoride effects' Doctor?

"A. The enamel of the teeth are (sic) effected at the period of formation and that approximates a time nine to twelve months prior to eruption, and we have observed in the thirty parts per million group a very slight mottling and in some cases a very slight stain of the incisors teeth that were forming during the period of development. \* \* \*

"Q. All right. How has the production of the control herd compared with the production of other animals that are similarly on DHIA test in your county?

"A. We have completed three lactation periods and we are nearly through with the fourth lactation period. I might add that in Oregon State that in arriving at a herd average all animals in the herd are included and our animals of course, we are not maintaining culling practice. We are keeping all the animals in, but as heifers they were very close to the average of the county. At the present time they are well above the average. In fact, this year they will be in, probably in the top ten per cent of the county."

This experiment thus indicates that dairy cattle may ingest up to 75 parts per million of fluorine without injury.

### c. Cheldelin testimony.

Appellants sought to detract from the conclusions reached by Drs. Phillips and Schmidt through their controlled feeding experiments by the testimony of Dr. Vernon H. Cheldelin of Oregon State College. His testimony on this point may be summarized as follows:

(1) The fluorides emanating from aluminum plants are inorganic (R-IX-2519).

(2) Sodium fluoride is inorganic (R-IX-2517).

(3) Air-borne fluorides from aluminum plants are taken into the internal structure of pasture grasses (R-IX-2516-2517).

(4) Growing plants convert inorganic fluorides into organic fluorides (R-IX-2519).

(5) One of these organic fluorides would be fluoro acetate (R-IX-2524)

Dr. Cheldelin then concluded that the controlled feeding experiments involving sodium fluoride are not "relevant" to the inquiry concerning the damage to cattle from air-borne fluorides (R-IX-2534).

Appellee concedes the validity of points (1) and (2) set forth above. As to point (3), the witness included all fluorides, both particulate and gaseous. This is in conflict with the testimony of Mr. Zeh, who, in answer to a question from appellants' counsel, indicated that only gaseous fluorides would be taken into a plant (R-III-100).

As to the fourth proposition, Dr. Cheldelin was the only witness willing to take a stand on the subject. His opinion was not based upon any experimental work in evidence, documentary or otherwise, and was entirely speculative. He admitted that he had not experimented with vegetation to determine whether or not his conclusions had any validity (R-IX-2544). The speculative character of his opinion is apparent from the testimony of the following expert witnesses on the same subject who indicated there was no proof concerning the same:

- (1) Zeh (R-III-101)
- (2) Miller (R-III-233)
- (3) Compton (R-V-1016)
- (4) Allmendinger (R-III-200)

All four of these men have spent years of research in connection with the deposition of air-borne fluorides on vegetation. Dr. Cheldelin, on the other hand, has engaged in no experiments with pasture grasses, nor conducted fumigation experiments with fluorine gases (R-IX-2543-2544).

With respect to the fifth proposition set forth above, Dr. Cheldelin testified that the German publication which he cited as containing evidence of the conversion by pear and cherry leaves and spruce needles of inorganic fluorides to organic fluorides did not indicate

the nature of the type of organic fluoride (R-IX-2519-2520). He could cite only one tropical plant as evidence that fluoro acetate existed in plant life (R-IX-2520-2521). At the same time, he testified as follows:

(1) All forage contains some fluorine (R-IX-2542).

(2) This fluorine in forage is derived from the soil (R-IX-2542).

(3) The identity of the fluorine in forage is not known, but he would expect fluoro acetate to be present (R-IX-2545, 2547, 2554-2555).

(4) Scientific techniques are not available to distinguish between the amount of fluoro acetate he would expect to find under normal conditions and the amount of fluoro acetate attributable to the conversion of inorganic air-borne fluorides into organic fluorides (R-IX-2555).

(5) It is impossible presently to determine whether pasture grass containing 200 to 500 parts per million of fluorine because of the deposition of air-borne fluorides would contain a lethal amount of fluoro acetate (R-IX-2557).

This testimony indicates that his criticism of the controlled feeding experiments involving sodium fluoride as not reflecting what is occurring in areas subject to the deposition of air-borne fluorides is without foundation. The fact that these experiments do create effects similar to those occurring in the field is borne out by the testimony of Dr. Schmidt (R-VII-1731, 1732-1733).



“Q. Well, maybe I can put it this way. Let’s assume that the cow that is eating grass near an aluminum plant is getting thirty parts per million in the form of hydrofluoric acid from the grass and you are feeding your thirty parts per million in the form of a salt such as sodium fluoride, aren’t your conclusions based on the assumption that regardless of the kind of fluorine the cow consumes, that you will get identical results with the same amount of actual fluorine?”

“A. I am basing my conclusions on what I see, and I see the same conditions in animals that are in an area of an aluminum plant or a steel plant or a fertilizer plant, as I have in the animals that I have on sodium fluoride in my feed experiment.

“THE COURT: He said he observed it in the field in connection with plants and also the results of his test experiments and to him he sees no difference.”

The trial court accepted “at substantially full face value” the conclusions which Dr. Phillips and Dr. Schmidt derived from their controlled feeding experiments and discounted Dr. Cheldelin’s opinions (R-I-93-94):

“The court was much impressed with the ability, scientific attitude and credibility of Dr. Paul H. Phillips, Professor of Biochemistry at the University of Wisconsin, and Dr. Harold J. Schmidt of Stanford University Research Institute. Each is one of the very few top authorities in his scientific field and both testified in a frank and fair manner giving the impression of scientific candor and objectivity. These men have given special attention over a long period of time to the effects of fluorine in-



gestion in cattle and have personally conducted elaborate scientific experiments with extensive herds devoted exclusively to such purpose. Both Dr. Phillips and Dr. Schmidt testified without reservation that cattle could and actually had ingested fluorine over considerable periods in amounts far exceeding the maximum shown to have been available for ingestion by plaintiffs' animals without injurious effect either as to physical condition or milk production capacity. Plaintiffs' witness, Professor Cheldelin, testified that in his opinion inorganic fluorine, such as found in the effluence from defendant's plants, after deposit on vegetation is absorbed in the plant cells and therein converted to organic fluorine developing thereby much more highly toxic powers; but he admitted that such theory has never been demonstrated or proven by actual experiment and, at the present stage of science, is merely a matter of theory not endorsed by scientists generally. The court accepts the testimony of Dr. Phillips and Dr. Schmidt at substantially full face value and in doing so cannot but conclude that on the issues covered by their testimony, plaintiffs have wholly failed to sustain the burden of proof resting on them in these cases."

#### **d. Veterinarian testimony.**

The opinions of competent veterinarians who have examined cattle claimed to have been damaged by fluorosis is another means of determining whether or not such claims have merit. Appellee called as expert witnesses Drs. Chapman, Phelps and Garlick, each of whom had examined almost every herd involved in these actions. Each of these men has extensive experi

ence in employing the diagnostic techniques required to determine whether injury or damage from fluorosis has occurred.

Dr. Chapman's initial contact with this matter occurred as the examining veterinarian for Oregon State College in 1948 and 1949 in connection with its study of fluorosis in cattle (R-VIII-2085-2087). Dr. Garlick had first encountered the problem in 1942 or 1943 near Tacoma, and has specialized in the use of teeth of cattle for diagnostic purposes (R-VII-1855). Dr. Phelps has been president of both the Oregon State Veterinary Medical Association and also the Washington State Veterinary Medical Association. His experience has been similar to that of Dr. Garlick's (R-VIII-2273, 2275).

Appellants called Drs. Keller and Guard. Dr. Keller graduated from Washington State College in 1945 and practiced in the Camas-Washougal area from 1945 to 1952 (R-III-242). He made his first diagnosis of fluorosis in 1946 (R-III-303).

Dr. Guard commenced private practice one year later than Dr. Keller at Longview, Washington (R-VII-1744). Neither he nor Dr. Keller attempted to obtain supporting laboratory data for their diagnoses of fluorosis (R-III-303; VII-1799). Dr. Guard testified that "fluorine staining" on the teeth of some cattle in a

herd always signified toxic injury to the herd, and that such herd had no commercial value except for salvage purposes (R-VII-1809, 1826, 1829). Dr. Keller disagreed with this view, for he testified that a *majority* of the animals would be suffering (R-III-300, 301). He also has indicated that the effect of fluorine ingestion on teeth does not necessarily mean injury to the animal (R-VIII-2093-2094):

“Fluorine has a deleterious effect on tooth development even in a dose that has no other injurious effect.”

Referring to the five veterinarians who examined appellants' cattle and testified concerning the condition of the same, the trial court stated (R-I-90):

“Each of the veterinarians examined all of the dairy cattle in plaintiffs' herds and cattle urine was tested for fluorine by defendant's veterinarians at various intervals during the period in question; plaintiffs' veterinarians found a variety of physical conditions in the cattle which they considered evidence of fluorine ingestion and damage resulting therefrom. Defendant's veterinarians accounted for many of the ailments and defects referred to by ascribing them to other causes and categorically were of the opinion that none of the plaintiffs' cattle had suffered injury or damage in any respect by reason of fluorine ingestion, testifying that the urine analysis supported such opinion. The court was favorably impressed with the ability, integrity and thoroughness of defendant's veterinarians and, to say the least, is of the opinion that there is no preponder

ance in favor of the plaintiffs in the evidence of the veterinarians."

#### e. Arvidson action.

The following review of the proof relating to the Arvidson appellants measured by the standards previously referred to indicates that the claims of damage to cattle are without merit.

(1) **Albert A. Arvidson.** No reference is made to these appellants in Appellants' Brief (Point II). The highest fluorine content in the forage samples taken on their property was 21 parts per million (*supra*, p. 17). This is normal, or at least close to normal (*supra*, p. 18). The highest fluorine content of urine samples taken from these appellants' cattle was 3 parts per million. This was within the normal range (*supra*, p. 18).

The following veterinarians examined appellants' herd for fluorosis on the following dates:

| <i>Veterinarian</i> | <i>Date of Examination</i> |
|---------------------|----------------------------|
| Garlick             | 7-12-51                    |
| Phelps              | 7-12-51<br>10-26-53        |
| Chapman             | 10-26-53                   |

Drs. Chapman, Garlick and Phelps found no evidence of injury or damage in examinations over a two year period (R-VIII-2096; R-VII-1880; R-VIII-2282-2283,

2288). The diagnoses of these three veterinarians is confirmed by the forage and urine samples referred to above. Further confirmation is derived from the fact that appellants could not tell whether there was a drop in milk production (R-V-1064). Appellants contend that increased fluorine intake causes a decrease in milk production (Appellants' Brief, p. 28).

The credibility of Mr. Arvidson is extremely questionable in view of his admission on the witness stand that he followed the practice of filing personal property returns in which he falsified the number of cattle on hand on the critical dates (R-V-1076-1077).

(2) **Baker.** No forage samples were taken from the Baker properties. The highest amount of fluorine recovered from urine samples was 5.7 parts per million, which, of course, is a normal amount (*supra*, p. 19).

The following veterinarians examined appellants' cattle on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                |
|---------------------|----------------------------|
| Phelps              | 9-20-50 (R-VIII-2281)      |
| Phelps              | 7-12-51 (R-VIII-2282-2283) |
| Garlick             | 7-12-51 (R-VII-1881, 1884) |
| Phelps              | 8-25-53 (R-VIII-2285-2286) |
| Chapman             | 8-25-53 (R-VIII-2088-2089) |

The examinations of these three veterinarians covered a three year period. None of them made a diagnosis

that the animals in the herd during this period were suffering from fluorosis. The urine samples confirm their opinions. Apparently, these appellants also experienced no appreciable variation in milk production. Production was "down a little in 1949 or 1950," but started up again thereafter (R-IV-682-683).

(3) **Brandt.** No reference is made to these appellants in Appellants' Brief (Point II). The highest fluorine content of forage samples taken on their farm was 22 parts per million, which is normal or close thereto (*supra*, p. 17). The urine samples with the most fluorine contained a normal amount, 3.7 parts per million (*supra*, p. 19).

The Brandt cattle were examined by the following veterinarians on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                       |
|---------------------|-----------------------------------|
| Garlick             | 7-12-51 (R-VII-1884, 1887)        |
| Phelps              | 7-12-51 (R-VIII-2282-2283)        |
| Phelps              | 10-28-53 (R-VIII-2288-2289, 2295) |
| Chapman             | 10-28-53 (R-VIII-2105-2106)       |

None of these veterinarians who examined the cattle over a two year period diagnosed the cattle as suffering from fluorosis. Their opinions in this respect are confirmed by the urine and forage samples.

Mr. Brandt characterized the condition of his herd as follows (R-V-929):



“Q. I see. What have you to say about the condition of your herd right now? Is it in good condition, good flesh and so forth, or otherwise?”

“A. Well, they look all right to me.”

Dr. Keller, one of appellants’ veterinarians, admitted that his examination of the teeth of the animals in the herd disclosed only one animal with staining attributable to fluorine ingestion after December 7, 1948, and this animal was “on the borderline” (R-III-318).

(4) **Depoe.** One of the forage samples taken from the property of these appellants contained 13 parts per million of fluorine. The others contained less than this. All were, therefore, within the normal range (*supra*, p. 18). The same conclusion must be drawn as to the urine samples, as the one with most fluorine contained only 3 parts per million (*supra*, p. 19).

The herd examinations by the following veterinarians on the following dates disclosed no fluorosis:

| <i>Veterinarian</i> | <i>Date</i>                  |
|---------------------|------------------------------|
| Garlick             | 5-25-50 (R-VII-1874)         |
| Garlick             | 7-13-51 (R-VII-1897-1898)    |
| Phelps              | 7-13-51 (R-VIII-2284)        |
| Phelps              | 10-28-53 (R-VIII-2290, 2295) |
| Chapman             | 10-28-53 (R-VIII-2107-2108)  |

(5) **Ford.** No reference to the operations of these appellants may be found in Appellants’ Brief (Point



II). The fluorine content of the forage samples taken on their property was within the normal range, being 15 parts per million or less. The same was true of the urine samples, and the highest fluorine content found was 4.3 parts per million (*supra*, p. 19).

No injury or damage from fluorosis was discovered by the following veterinarians during examinations of appellants' cattle on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                  |
|---------------------|------------------------------|
| Phelps              | 9-20-50 (R-VIII-2281-2282)   |
| Phelps              | 7-13-51 (R-VIII-2284)        |
| Garlick             | 7-13-51 (R-VII-1898-1899)    |
| Phelps              | 10-26-53 (R-VIII-2287-2288)  |
| Chapman             | 10-26-53 (R-VIII-2097, 2100) |

Notwithstanding the above data, Mr. Ford listed a number of ailments which he claimed his cattle had suffered from since he moved on the property which he occupies as a lessee. One of these was loss of milk production. His testimony on this point was so discredited on cross-examination as to entitle the remainder of his testimony to no weight. Mr. Ford moved to the property which he now occupies in December, 1947 (R-IV-740). His milk production during 1948 was good. His production dropped substantially in 1949 and remained down during 1950 and 1951. During all four years he had approximatey 28 head in his milking

string (R-IV-741). He thought he received more income from the sale of dairy products in 1948 than in 1949 (R-IV-742). In his United States income tax returns, however, he reported the following income from such sales during these years (R-IV-743):

|      |             |
|------|-------------|
| 1948 | \$11,526.90 |
| 1949 | 13,160.32   |

Mr. Ford attempted to explain the fact that his income was almost \$1,500 greater in 1949 than in 1948 on the ground that he had only 24 cows early in 1948 and had acquired 28 by the end of that year (R-IV-754). However, he listed 38 cows as the number on hand on January 1, 1949, in his personal property return (R-IV-757).

Mr. Ford further testified that his worst year was 1951, when only 15 to 16 head out of 28 were in good condition and producing normally (R-IV-746-747). He claimed there was an improvement in 1953, and classed the summer of 1953 with 1948 (R-IV-726, 748). However, he testified that only 10 head out of 28 were giving normal production (R-IV-748-749).

(6) **Hester.** These appellants left the Camas-Washougal area in the fall of 1951 when they moved to Aurora, Oregon (R-IV-337). There was no evidence introduced concerning forage and urine samples relating to their operation. Their cattle were examined on

July 13, 1951, by Drs. Phelps and Garlick. Neither found evidence of damage by fluorosis (R-VII-1899-1901; VIII-2284).

These diagnoses were confirmed to a great extent by Mr. Hester's testimony. While he listed a number of conditions which he claimed his herd suffered from before moving to Aurora, he admitted that the animals were in pretty fair flesh from 1947 to 1951, and that there was a substantial increase in production from year to year during this period (R-IV-392, 393, 414-415).

Because of the multitude of contradictions in his other testimony, the existence of the ailments claimed must be discounted. The following table sets forth some of the inconsistencies between his testimony at the trial and his deposition testimony:

*Trial*

*Deposition*

- |   |   |
|---|---|
| 1. Goldendale hay was purchased and fed during the winters of 1947-1948, 1948-1949, 1949-1950 and 1950-1951 (R-IV-380-382). | 1. No hay was purchased during 1947 and 1948 (R-IV-383-384).                              |
| 2. 6 acres of hay grown in 1951 (R-IV-385-386).   | 2. 12 acres in hay (R-IV-386).  |
| 3. Hay grown produced 12 tons (R-IV-386).   | 3. 23-30 tons produced (R-IV-386-387).  |
| 4. 12 tons of hay instead of 23 produced in 1951 because of <i>rain</i> (R-IV-387).   | 4. 23 tons rather than 30 tons produced in 1951 because of <i>dry</i> weather (R-IV-387). |
| 5. Hay produced was sold (R-IV-388).  | 5. No hay sold (R-IV-388).  |

This summary sets forth some of the inconsistent testimony of the witness. Similar inconsistencies exist between his deposition testimony read at the trial and his federal income tax returns, and between various portions of his testimony at the trial. His testimony is entirely valueless and thoroughly discredited.

(7) **Isbister.** No forage samples were taken from the property owned by these appellants. However, the fluorine content of the urine samples taken was normal, the highest being only 2.4 parts per million (*supra*, p. 19).

No evidence of damage or injury from fluorosis was found by the veterinarians examining the Isbister herd on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                     |
|---------------------|---------------------------------|
| Garlick             | 7-12-51 (R.VII-1888, 1891-1892) |
| Phelps              | 7-12-51 (R-VIII-2282-2283)      |
| Phelps              | 8-25-53 (R-VIII-2285-2286)      |
| Chapman             | 8-25-53 (R-VIII-2088-2089)      |

As a matter of fact, Dr. Guard, appellants' veterinarian classified the general condition of the herd as "good" (R-VII-1779).

Mr. Isbister referred to a number of conditions affecting his herd which he attributed to the operation of appellee's Troutdale plant. However, an analysis of his testimony shows there was little of substance to the

same. At the time his deposition was taken in 1951 he testified that his cattle were "all fat and in good condition" (R-IV-508). At the trial he testified that his animals "stay in fairly good condition" (R-IV-479). Rex Ross, appellants' witness, testified that when he visited the farm in 1951 and 1953 the herd was "in very good condition" (R-V-789). The herd's milk production was normal during 1950 and 1951. The production for 1952 and 1953 was the same as 1950 and 1951 (R-IV-493).

At the same time he referred to six head which he sold because of lameness or poor production. The following table lists some of these animals and comments concerning the alleged reasons for sale:

| <i>Cow</i> | <i>Reason</i>  |
|------------|--|
| Daisy      | Old age (R-IV-483).  |
| Pansy      | Not lame, nor stiff. Always a poor producer. In his deposition he testified she was in "pretty good condition" and had normal production (R-IV-494-495). |
| Poll       | Bag trouble (R-IV-496-497).  |
| Flo        | Bag trouble. Possible mastitis (R-IV-497-498).   |

There were nine animals in the Isbister milking string at the time of trial (R-IV-473). His comments as to seven of these indicate the herd was in good condition and normal:

| <i>Cow</i> | <i>Remarks</i>   |
|------------|--|
| Lena       | Good condition with fair production. Good production in 1951 and 1952. (R-IV-499-500). |
| Dolly      | Good production all the time. No stiffness or rough hair (R-IV-500-501).               |
| Jean       | Production "about normal" since 1948 (R-IV-501-502).                                   |
| Jo Ann     | Good condition. Good production. (R-IV-503).   |
| Lilly      | Good condition and good production since first freshening (R-IV-504).                  |
| Dot        | Good condition (R-IV-504).   |
| Joy        | Normal (R-IV-505).   |

(8) **Norelius.** No reference to these appellants is made in Appellants' Brief (Point II). The highest amount of fluorine found in forage samples on their property was 12 parts per million. The amount of fluorine in urine was 2.3 parts per million or less. These results were within the normal range (*supra*, p. 18).

The herd of these appellants was examined by the following veterinarians on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                      |
|---------------------|----------------------------------|
| Garlick             | 7-12-51 (R-VII-1892, 1895)       |
| Phelps              | 7-12-51 (R-VIII-2283)            |
| Phelps              | 10-26-53 (R-VIII-2288)           |
| Chapman             | 10-26-53 (R-VIII-2101 2104-2105) |

No evidence of injury or damage from fluorosis was discovered.



Mr. Norelius testified that his cattle had suffered from a condition which he apparently attributed to the operation of the Troutdale plant, and that some of them had died (R-V-1119). However, he also stated that his herd had improved by 1951 and was presently "awfully close" to normal (R-V-1127, 1129). When questioned about the deaths of some of his cattle, he could not remember how many died and in what years. It is also significant that the specific deaths which he could recall were attributable to causes other than the operation of the plant (R-V-1132-1133).

(9) **Robson.** There is also no reference to these appellants in Appellants' Brief (Point II). The most fluorine found in any of the forage samples taken on the properties of these appellants was 12 parts per million. The most fluorine found in the urine samples was 2.7 parts per million. These results, of course, were normal (*supra*, p. 18).

No evidence of injury from fluorosis was found by the following veterinarians who examined the herd on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                     |
|---------------------|---------------------------------|
| Phelps              | 9-20-50 (R-VIII-2281-2282)      |
| Phelps              | 7-13-51 (R-VIII-2284)           |
| Garlick             | 7-13-51 (R-VII-1901, 1903-1904) |
| Phelps              | 10-28-53 (R-VIII-2292, 2295)    |
| Chapman             | 10-28-53 (R-VIII-2109-2110)     |



Mr. Robson also listed a number of conditions which he claimed were abnormal and which he attributed to the operation of the Troutdale plant. One of these was a decrease in milk production, from which all the appellants contend they suffered (R-V-897). If there is as little of substance to the other conditions as there is to the claimed loss of milk production, his testimony as to the other conditions should be disregarded entirely. The following table sets forth the Robson income from the sale of dairy products during the following calendar years and the number of milk cows during the same periods:

|      |                   |                      |
|------|-------------------|----------------------|
| 1949 | 28 (R-V-883,899)  | \$6,568.37 (R-V-907) |
| 1950 | 28 (R-V-883, 899) | 9,720.58 (R-V-907)   |
| 1951 | 26-28 (R-V-900)   | 7,932.25 (R-V-907)   |
| 1952 | 32 (R-V-899)      | 10,000.+ (R-V-907)   |

The foregoing table shows that instead of suffering a loss of production these appellants enjoyed roughly a 50 per cent increase in income from the sale of milk during the years in question.

(10) **Seekins.** The forage sample on this property contained 19 parts per million, which is not abnormal. The most fluorine found in the urine samples was 5.9 parts per million. This, too, is within the normal range (supra, p. 18).

Examinations by the following veterinarians on the following dates failed to disclose injury or damage from fluorosis:

| <i>Veterinarian</i> | <i>Date</i>                 |
|---------------------|-----------------------------|
| Garlick             | 7-12-51 (R-VII-1875, 1878)  |
| Phelps              | 7-12-51 (R-VIII-2282-2283)  |
| Phelps              | 10-28-53 (R-VIII-2294-2295) |
| Chapman             | 10-28-53 (R-VIII-2109-2110) |

One of appellants' veterinarians testified that only two animals had a dental condition which he would attribute to fluorosis (R-VII-1783).

Mr. Seekins had the occasion to call a veterinarian to his farm on several occasions from 1947 to the time of trial. In no instance was the visit necessitated by conditions attributable to fluorosis (R-IV-545-549).

Mr. Seekins was asked whether his herd had not produced between 300 and 325 pounds of butterfat per cow during the five years preceding the trial. At the time his deposition was taken on August 30, 1951, he had testified that production was 310 to 320 pounds per cow (R-IV-551-554). This is exactly the production Mr. Ross, appellants' witness, indicated that the herd would give under ordinary circumstances (R-V-798).

(11) **Stauffer.** The urine and forage samples from this farm did not contain more than the normal amount of fluorine. The most fluorine found was 15 parts per

million in forage and 2.3 parts per million in urine (supra, pp. 17, 19).

No clinical evidence of fluorosis was found by the following veterinarians who examined the herd on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                 |
|---------------------|-----------------------------|
| Garlick             | 7-13-51 (R-VII-1905, 1907)  |
| Phelps              | 7-13-51 (R-VIII-2284)       |
| Phelps              | 11-12-53 (R-VIII-2296-2297) |
| Chapman             | 11-12-53 (R-VIII-2109-2110) |

The only veterinarian whose testimony was in conflict with the diagnoses of Drs. Chapman, Phelps and Garlick is Dr. Keller, appellants' witness.

Mr. Stauffer testified that he had had to sell cows since 1948 because of drop in production and lameness, which he attributed to the operation of the Troutdale plant (R-IV-627). He testified at the time his deposition was taken that in a herd of 25 cows 7 to 8 would be disposed of each year under normal circumstances (R-IV-641). This would be 28 to 32 per cent. The following table, which sets forth actual culling by these appellants and the number of animals which they would expect to dispose of under ordinary circumstances, indicates that their culling was not unusual:

| <i>Year</i> | <i>Number in Herd</i> | <i>Number Sold</i> | <i>Normal Sales (30%)</i> |
|-------------|-----------------------|--------------------|---------------------------|
| 1949        | 25 (R-IV-660)         | 5 (R-IV-644)       | 7.5                       |
| 1950        | 26 (R-IV-660)         | 10 (R-IV-644)      | 7.8                       |
| 1951        | 26 (R-IV-660)         | 11 (R-IV-644, 658) | 7.8                       |
| 1952        | 28 (R-IV-660)         | 1 (R-IV-644)       | 8.4                       |
| 1953        | 33 (R-IV-660)         | 5 (R-IV-642)       | 9.9                       |
|             | Total                 | 32                 | 41.4                      |

(12) **Johnston.** No reference to these appellants is made in Appellants' Brief (Point II). The fluorine content of the forage and urine samples from the farm of these appellants was normal, the highest being 11 and 2.1 parts per million, respectively (*supra*, pp. 17, 19).

No evidence of injury to cattle from fluorosis was found by the following veterinarians who examined on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                  |
|---------------------|------------------------------|
| Garlick             | 9-14-51 (R-VII-1908-1909)    |
| Phelps              | 9-14-51 (R-VIII-2284)        |
| Phelps              | 10-28-53 (R-VIII-2291, 2295) |
| Chapman             | 10-28-53 (R-VIII-2109-2110)  |

Dr. Guard, a veterinarian called by appellants, would not make a diagnosis of fluorosis in this herd. He testified (R-VII-1783):

“Q. In your opinion, Dr. Guard, did the Johnston herd have fluorosis as of the time you were there?

“A. This is one of the herds that I wouldn't want to make a statement unless I had actually worked with the herd for a number of years.”

The testimony of Homer V. Johnston as to the ailments affecting his cattle which he attributed to the operation of the Troutdale plant should be disregarded entirely because of the glaring discrepancies between this testimony and his deposition testimony. For example, he testified at the trial that certain of the conditions complained of became manifest sometime near 1946 and 1947, and that during the years 1948 to 1950 inclusive, the herd was not enjoying a normal condition and was not producing the normal amount of milk (F V-976-980). This testimony is in direct conflict with Mr Johnston's deposition testimony on the same subject (F V-981-982):

"Q. Well, referring to your deposition which was taken on or about September 18, 1951, and referring particularly to pages 60 and 61, do you recall testifying as follows:

'Q. Would you say that up to the year 1950 your milk production was generally normal and the condition of your cattle was generally normal?

'A. Yes, I do.

'Q. So that the first signs of any illness or adverse effect upon your herd which you attribute to the aluminum plant occurred during the year 1950, is that correct?

'A. Well, let's see. This is 1951, is it not?

'Q. Yes.

'A. Yes, prior to the beginning of 1950 I didn't see anything.

'Q. You didn't see anything?

'A. Abnormal or out of the way. \* \* \*

'Q. During the period prior to 1950 was the hair of the herd in general what you would call normal?

'A. I think so, nothing serious otherwise.

'Q. Would you say that the milk production of the herd in general was normal?

'A. Yes.

'Q. Did you observe any unusual amount of lameness and stiffness?

'A. Not prior to 1950.' "

(13) **Raymond A. Arvidson.** The claims of these appellants are also not discussed in Appellants' Brief (Point II). No forage samples were taken from their property. The most fluorine found in the urine samples taken from animals in the herd was 8.3 parts per million in one sample, which is not above normal (*supra*, p. 18).

Examinations of the herd of these appellants by the following veterinarians failed to disclose injury or damage from fluorosis:

| <i>Veterinarian</i> | <i>Date</i>               |
|---------------------|---------------------------|
| Phelps              | 9-3-53 (R-VIII-2286-2287) |
| Chapman             | 9-3-53 (R-VIII-2089-2092) |

Dr. Garlick did not examine this herd. Dr. Guard examined the herd for appellants and testified as follows (R-VII-1783-1784):

“A. As far as the incisor teeth, another one of these herds that I do not know the history on and I call all the teeth normal. Except number 11 shows a little wear on one of the incisors. Again, I didn’t mark condition on this herd as it wasn’t anything outstanding as far as the condition goes.

“Q. Have you an opinion as to whether or not this herd was suffering from fluorosis as of the time you saw it?

“A. I don’t know.”

#### **f. Whiteaker action.**

The following review of the proof relating to the Whiteaker appellants applying the standards previously referred to indicates that their claims of damage to cattle are also without merit.

(1) **Whiteaker.** Appellee did not maintain a regular forage sampling station on the property of these appellants. The following table summarizes the amount of fluorine in parts per million found in forage taken by appellee at the two stations nearest their property (R-I-156-161):



| <i>Year</i> |         | <i>Maximum</i> | <i>Minimum</i> | <i>Average</i> |
|-------------|---------|----------------|----------------|----------------|
| 1950        | —No. 7  | 19             | 3.0            | 11             |
|             | —No. 5A | 39             | 3.8            | 16             |
| 1951        | —No. 7  | 26             | 4.3            | 11             |
|             | —No. 5A | 15             | 0.7            | 8.4            |
| 1952        | —No. 7  | 60             | 5.3            | 26             |
|             | —No. 5A | 53             | 4.0            | 19             |
| 1953(9-30)  | —No. 7  | 42             | 5.0            | 17             |
|             | —No. 5A | 22             | 7.5            | 13             |

All the samples contained less than 75 parts per million of fluorine, the maximum amount being administered by Dr. Schmidt to his experimental herd without effect on size or milk production (*supra*, p. 34). With a few exceptions all contained less than 50 parts per million of fluorine, the maximum amount being fed by Dr. Phillips without deleterious effects (*supra*, p. 33).

Personnel from the Western Washington Experiment Station did take forage samples on the property of these appellants during this period. The following table setting forth the fluorine content of said samples in parts per million shows that there was even less fluorine on the property than at the two areas referred to above where appellee had been sampling (R-I-162-164):

| <i>Year</i> | <i>Maximum</i> | <i>Minimum</i> | <i>Average</i> |
|-------------|----------------|----------------|----------------|
| 1950        | 12             | 0              | 4.1            |
| 1951        | 23             | 3              | 11             |
| 1952        | 31             | 5              | 12             |
| 1953        | 41             | 5              | 14             |

The urine samples taken from animals in the herd of these appellants are another indication that no injury occurred. The following table sets forth the *maximum* amounts of fluorine found in samples taken on the following dates:

| <i>Date</i> | <i>Fluorine</i>   |
|-------------|-------------------|
| 10-13-52    | 13.3 (R-I-165)    |
| 10-20-52    | 19.3 (R-I-165)    |
| 6- 4-53     | 6.8 (R-I-166)     |
| 8- 4-53     | 2.9 (R-I-166-167) |

The samples taken in 1953 contained a normal amount of fluorine (*supra*, p. 18). Some of those taken in 1952 contained more than the normal amount. However, the amount in each instance was not sufficiently high to indicate that the animal in question was injured or damaged by fluorosis. Dr. Phillips' uncontradicted testimony was that the amount of fluorine in each instance was below the damaging level (R-VIII-2016-2018). The sample with the most fluorine (19.3 parts per million) contained far less fluorine than the highest sample obtained by Dr. Schmidt from his experimental herd (49 parts per million) where cattle were consuming up to 75 parts per million of fluorine without damage.

Animals in the appellants' herd were examined on the following dates by the following veterinarians:

| <i>Veterinarian</i> | <i>Date</i>                       |
|---------------------|-----------------------------------|
| Phelps              | 11-21-50 (R-VIII-2298, 2303-2304) |
| Phelps              | 10-20-52 (R-VIII-2300, 2303-2304) |
| Chapman             | 10-20-52 (R-VIII-2113, 2117-2118) |
| Garlick             | 12-19-52 (R-VIII-1922, 1925-1926) |
| Phelps              | 6- 4-53 (R-VIII-2300, 2303-2304)  |
| Phelps              | 8- 4-53 (R-VIII-2301, 2303-2304)  |
| Chapman             | 8- 4-53 (R-VIII-2113, 2117-2118)  |

None of these veterinarians found a condition present in the animals examined on the above dates which they attributed to injury from fluorosis. The teeth of a few animals showed cosmetic changes attributable to the ingestion of more than normal amounts of fluorine, but ingestion causing the changes occurred prior to the period for which damages may be recovered herein (R-VIII-2303-2304; R-VII-1926).

(2) **Rawnsley.** Appellee commenced taking forage samples on the property of these appellants in 1952. The following table summarizes the amounts of fluorine in parts per million from these samples (R-I-175):

| <i>Year</i> | <i>Maximum</i> | <i>Minimum</i> | <i>Average</i> |
|-------------|----------------|----------------|----------------|
| 1952        | 21             | 11             | 16             |
| 1953 (9-30) | 22             | 3              | 15             |

Similar samples were taken by Western Washington Experiment Station personnel. The results are summarized in the following table (R-I-176-178):

| <i>Year</i>  | <i>Maximum</i> | <i>Minimum</i> | <i>Average</i> |
|--------------|----------------|----------------|----------------|
| 1950         | 16             | 4              | 9.5            |
| 1951         | 35.5           | 2              | 15.8           |
| 1952         | 66             | 2              | 19             |
| 1953 (10-12) | 25             | 4              | 11             |

Other samples taken by the same organization in 1952 contained more than the normal amount of fluorine, the highest being 65.8 parts per million (R-I-180).

None of the above samples exceeded the 75 parts per million being fed by Dr. Schmidt. Only 4 out of 62 samples contained more fluorine than the 50 parts per million being fed by Dr. Phillips. The most fluorine in the forage was during 1952 according to the above data. The data for this year were called to Dr. Phillips' attention, and he testified (R-VIII-2075-2076):

"Q. Well, I will give you the question. Assume that the animals in your herd are receiving twenty parts per million were to be shifted over to the values shown on page 22 of the Whiteaker pretrial order for the year 1952, running from February through December, that is the values of forage, would you expect the animals' experience to be any different from that which you observed in your group of four animals receiving twenty parts per million of fluorine in the form of sodium fluoride?

"A. I believe their performance would be very similar because only for a short period of time have they been subjected to sixty-six and sixty-three parts per million and much of that interval during the course of the year in 1952 is far below the amount which would be equivalent to twenty parts per million in our experimental setup.

"In other words, out of a third of the year it is [not] below ten parts per million and that might be very normal for many cattle feeds in many sections of the country."

None of the urine samples taken from animals in the herd contained more than the normal amount of fluorine as shown by the following table setting forth the dates upon which samples were taken and the maximum amount of fluorine found in each sample on each date:

| <i>Date</i> | <i>Sample</i>    |
|-------------|------------------|
| 10-12-52    | 8.9 (R-I-179)    |
| 10-17-52    | 10.4 (R-I-179)   |
| 6-25-53     | 3.2 (R-I-180)    |
| 10-19-53    | 6.0 (R-VII-1650) |

The conclusions drawn from the foregoing data are confirmed by examinations of the cattle of these appellants by the following veterinarians on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                            |
|---------------------|--|
| Phelps              | 2-13-52 (R-VIII-2304)                  |
| Garlick             | 12-19-52 (Ex. 1566) (R-VIII-1929-1930) |
| Phelps              | 10-19-53 (R-IX-2313)                   |
| Chapman             | 10-19-53 (R-VIII-2113, 2115-2117)      |

All these veterinarians testified that the animals examined by them had not been damaged by fluorosis since November 12, 1950 (R-IX-2311-2314, 2319; R-VIII-2115-2117; R-VIII-1929-1934).

One of Mr. Rawnsley's complaints was a type of scours which he attributed to the operation of the Longview plant. He mentioned in particular a siege of scours which occurred about June 15, 1953, became severe by June 20, 1953, and lessened thereafter. This occurred with the onset of westerly winds (R-VI-1205-1206). On cross-examination, he admitted that the fluorine content of forage samples taken on May 25, 1953, and June 22, 1953, was 4 and 9 parts per million, respectively (R-VI-1226). This is normal by the testimony of any of the witnesses expressing opinions on the subject. Any scours which the Rawnsley herd experienced during this period could not have been caused by the operation of the Longview plant.

The production record of the Rawnsley herd is such that it cannot be reconciled with a claim that operation of the plant injured the animals. In 1949, the herd enjoyed the highest production in the county for Dairy Herd Improvement Association herds over 40 cows (R-VI-1236, 1241). Part of the herd was pictured on the cover of the 1950 annual report of the Cowlitz County Dairy Herd Improvement Association (R-VI-1242-1243). 15 cows out of the herd were listed on the honor roll of the Dairy Herd Improvement Association high producers for the year 1950. 10 were similarly cited for the year 1951, 9 for the year 1952, and 13 for the year 1953 (R-VI-1250-1252).



(3) **Goldsmith.** No reference is made to these appellants in Appellants' Brief (Point II). Neither appellee nor Western Washington Experiment Station engaged in periodic forage sampling on the property of these appellants which is south of the Rawnsley property but more distant from the Longview plant (R-I-184). The only forage samples introduced in evidence contained 9.4 and 8.9 parts per million of fluorine, which was below the damage level. Samples of home grown hay, barley and mixed grain contained 2.9, 1.4 and 1.5 parts per million, respectively (Ex. 1624).

The greatest amount of fluorine found in the urine samples introduced in evidence was 5.1 parts per million, which of course was normal (*supra*, p. 18).

The following veterinarians examined the Goldsmith herd on the following dates:

| <i>Veterinarian</i> | <i>Date</i>                  |
|---------------------|------------------------------|
| Chapman             | 10-20-52 (R-VIII-2113-2115)  |
| Garlick             | 12-19-52 (R-VIII-1934, 1936) |
| Phelps              | 10-19-53 (R-IX-2318-2319)    |
| Chapman             | 10-19-53 (R-VIII-2114-2115)  |

None of these veterinarians concluded that the cattle examined by them on the above dates had been damaged by fluorosis during the period for which damages are sought (R-IX-2318-2319; R-VIII-2112, 2115; R-VIII-1934, 1936).



These opinions are borne out by the milk production of this herd. The average amount of butterfat produced per cow was as follows (R-VI-1349-1350):

| <i>Period</i> | <i>Butterfat (pounds)</i> |
|---------------|---------------------------|
| 1948-1949     | 272.3                     |
| 1949-1950     | 293.1                     |
| 1950-1951     | 314.7                     |
| 1951-1952     | 315.6                     |
| 1952-1953     | 259.3                     |

Thus, the production of this herd has increased each year during the last five years except for the last year.

As a matter of fact, Mr. Goldsmith's willingness to purchase cattle owned by persons living in the vicinity of the plant indicates no real concern about the effect of the plant upon livestock. He purchased the original herd from his brother, who had leased the farm before him (R-VI-1336-1337). 16 head were purchased from Don Wayrynen, who lived 3½ miles from the plant (R-VI-1338, 1362). 2 head were purchased from V. D. Walker, whose farm was across the Columbia River from the plant (R-VI-1338, 1362). As late as 1952 he purchased a heifer from Cecil Burns, who lived 1 mile from the plant (R-VI-1365, 1367).

(4). **Josephson.** There is no reference to these appellants in Appellants' Brief (Point II). As previously noted, no forage samples were taken on this farm (supra,

p. 22). The highest fluorine content of the urine samples was 5.3 parts per million, which of course is normal (supra, p. 18).

The cattle owned by these appellants were examined on the following dates by the following veterinarians:

| <i>Veterinarian</i> | <i>Date</i>                            |
|---------------------|--|
| Garlick             | 12-19-52 (Ex. 1567) (R-VIII-1926-1927) |
| Phelps              | 8- 4-53 (R-IX-2316, 2319)              |
| Chapman             | 8- 4-53 (R-VIII-2113, 2117)            |

None of these veterinarians concluded that the cattle examined had been damaged or injured by fluorosis (R-VIII-1926-1929; R-IX-2317, 2319; R-VIII-2113, 2117).

Mr. Josephson is another of the appellants who attributes the sundry ills and ailments of his cattle to the operation of the Longview plant, but who has been willing to purchase cattle from persons operating nearer to the plant than he. In 1948 and 1949, for example, he purchased 6 Jersey cows from Claude Anderson, who lives 1 mile from the plant (R-VI-1372, 1421).

With these animals as a foundation he built up a herd which became the highest producing Dairy Herd Improvement Association herd in Cowlitz County in its group for a 3 year period ending on January 31, 1952 (R-VI-1422-1423). Most of the animals in the herd were listed on the honor roll of high producers during this

period. The following table shows the number of animals in the herd for the following years and the number so cited (R-VI-1427, 1431-1432, 1460):

| <i>Year</i> | <i>Number in Herd</i> | <i>Number on Honor Roll</i> |
|-------------|-----------------------|-----------------------------|
| 1950        | 7.6                   | 6                           |
| 1951        | 9.54                  | 6                           |
| 1952        | 14.06                 | 5                           |
| 1953        | 10-13                 | 7                           |

It is impossible to reconcile these milk production records with the claims of animals injured and damaged because of the operation of the Longview plant.

**2. Appellants failed to sustain the burden of proving that the proximate cause of any injuries to their cattle was appellee's operation of the plants.**

In order to prove that appellee's operation of the Troutdale and Longview plants caused harm to appellants' cattle, appellants must prove not only that the cattle were injured but also that the injury in each case was caused by appellee's operation of the plants.

It has already been demonstrated that appellants' cattle could not have been injured because of appellee's operation of the plants during the period for which damages are claimed (*supra*, II-A-1). A review of the proof also shows that the assertedly poor condition of appellants' cattle during this period was attributable

to causes other than consumption of forage containing a fluorine content above normal during the period for which damages may be claimed. If these conditions did exist as claimed by appellants, they are attributable entirely to ingestion occurring prior to the period for which damages may be claimed. Dr. Keller admitted that the condition of the teeth in some of the animals was caused by ingestion during such earlier years (R-III-322, 326).

**a. Arvidson action.**

No fume collection system was in operation at the Troutdale plant from 1942 to 1945 (3½ years). Since appellee's operation of the plant, a fume collection system has always been operating (*supra*, p. 2). Thus, if cattle were injured by the operation of this plant, one would conclude that the injury would be most severe and most apparent during the 3½ year period of operation without a fume collection system. This conclusion, which is inescapable, cannot be reconciled with the testimony of appellant after appellant in this case who testified that the conditions complained of were not observed until *years* after the plant had been in operation. The only inference to be drawn from this fact is that the testimony of such witnesses on this point was false, or that if the conditions existed they were attributable to some cause other than the

operation of the plant, such as disease. The record contains evidence to support both inferences as shown by the following review of the proof:

(1) **Albert A. Arvidson.** These appellants commenced their operation of the farm in 1941 (R-I-26). The cattle were in normal physical condition and gave normal production from 1941 to 1946. They first observed unusual conditions in 1946 (R-V-1068-1069). The plant was not operating from September 7, 1945, to September 23, 1946 (R-I-20). These conditions were first observed when the plant was not even operating

The herd has a history of Bang's disease (R-V-1074-1075). Difficulties have also been encountered with milk fever (R-V-1073-1074).

(2) **Baker.** There have not only been reactors to Bang's disease in this herd, but also on one occasion the entire herd has been quarantined (R-IV-687).

One animal reacted positively during tuberculosis tests (R-IV-697).

(3) **Brandt.** These appellants purchased part of their property in 1940 and the remainder in 1944 (R-I-31). None of the conditions complained of was observed from 1942 to 1946 (R-V-918-919). The milk production was normal (R-V-939). The first indication that pro

duction and condition were not normal occurred in 1948 (R-V-940).

Appellants sold a number of animals in 1948 and 1949. Mr. Brandt testified at his deposition that the 1949 sales were due to a shortage of feed (R-V-944-946).

There has been some mastitis in the herd (R-V-942). The only cow that died was examined by Dr. Keller, who did not state the cause of the animal's death (R-V-947).

If the herd was receiving an excessive amount of fluorine, the source was in their feed. Samples of mineral tonic taken from the farm on October 28, 1953, contained 135 parts per million of fluorine (R-VII-1645-1646). The fluorine content of the pasture in the area did not begin to approach this amount during the years in question.

(4) **Depoe.** This herd has a history of suffering from osteomalacia, mastitis, Bang's disease and tuberculosis (R-VII-1866-1867; R-IV-593, 602-603).

Mr. Depoe claimed that he was forced to sell a number of animals because of fluorosis. The record indicates that many of these animals were sold for other reasons:



| <i>Animal</i> | <i>Reason for Sale</i>     |
|---------------|----------------------------|
| Bonnie        | Mastitis (R-IV-593)        |
| Tillie        | 10 years old (R-IV-593)    |
| Peggy         | Mastitis (R-IV-594)        |
| Babe          | 11-12 years old (R-IV-596) |
| Boss          | 10 years old (R-IV-596)    |
| Bab           | Udder trouble (R-IV-600)   |
| Betty         | Udder trouble (R-IV-601)   |
| Queen         | Udder trouble (R-IV-602)   |

Mr. Depoe also was apparently feeding his animals far more fluorine than they could possibly receive from forage upon which air-borne fluorides may have been deposited. A sample of Digesta Bone, a mineral supplement, taken from his farm on October 28, 1953, contained 563 parts per million of fluorine (R-VII-1646).

(5) **Ford.** These appellants commenced leasing their property in 1947 (R-I-34). Milk production was normal until 1949 (R-V-741). The conflict and contradictions in the record as to the condition of the animals thereafter and their production makes it impossible to conclude that the condition of the herd, if actually not normal, was attributable to the operation of the Troutdale plant (*supra*, pp. 47, 48).

These appellants also apparently made it a practice to feed far more fluorine to their herd than the animals could consume by grazing on pastures subject to the deposition of air-borne fluorides. A sample of Watkin



Stock Mineral Compound taken from the farm on October 26, 1953, contained 1,340 parts per million of fluorine (R-VII-1643-1644).

(6) **Hester.** These appellants testified that they first noticed unusual conditions in their cattle in July, 1948 (R-IV-377). The animals in which they observed these conditions had been purchased by them from the previous lessee, Frank Lucie, who had grazed them on the property from 1944 to 1947. Mr. Hester did not observe any of these conditions at the time of purchase. Yet the herd had been grazing on this property not only during a portion of the time appellee was operating the plant, but also for more than a year during the period when the Aluminum Company of America was operating the plant without any collection system (R-IV-374-375).

These facts when considered with the number of times that Mr. Hester was impeached on cross-examination demonstrate that the operation of the Troutdale plant in no way caused or contributed to the woes of which he complained, whether real or imaginary (*supra*, pp. 49, 50).

(7) **Isbister.** These appellants purchased their property in 1941 (R-I-36). They have always had cows on the place (R-IV-472). Yet they first experienced low production in 1947, and did not observe stiffness in their

cattle until 1949 (R-IV-487-489). These conditions, therefore, developed only after the plant was being operated with controls.

When these facts are considered together with the detailed review of the evidence previously made showing no injury, it is apparent that the Troutdale plant was not the source of the complaints of these appellants (*supra*, pp. 50-52).

(8) **Norelius.** These appellants purchased most of their property long before the Troutdale plant was built (R-I-40-41). However, nothing abnormal about the condition of their cattle was observed by them prior to 1947. The condition and production of their cattle were normal during these years. The conditions complained of commenced in 1947, but improved in 1951 (R-V-1128). It is obvious from these facts that said conditions were not caused by the operation of the Troutdale plant.

If anything, the conditions were caused by feeding mineral supplements containing excessive amounts of fluorine. A sample of Digesta Bone taken from this farm on October 26, 1953, contained 545 parts per million of fluorine (R-VII-1644-1645).

(9) **Robson.** These appellants also assertedly suffered more from the operation of the plant with controls than without them. They acquired the property present

ly owned by them between 1919 and 1950 (R-I-41-47). A decrease in milk production did not occur until 1947 or 1948 (R-V-898).

Even though the herd was not in normal condition, it does not follow that this was attributable to the cause suggested by appellants. At least 4 head of cattle died from pneumonia during the period for which damages are claimed (R-V-895).

(10) **Seekins.** The only visits by a veterinarian for the purpose of treating the animals in this herd were in connection with (1) the failure of a cow to freshen; (2) the puncturing of a stomach vein by a fork; (3) udder trouble; and (4) indigestion (R-IV-545-547).

This herd also was exposed to a far larger amount of fluorine through faulty husbandry practices than through grazing upon pastures of the farm. A sample of Watkins Mineral Block, a mineral supplement, taken from this farm on October 28, 1953, contained 480 parts per million of fluorine (R-VII-1649).

(11) **Stauffer.** These appellants purchased their property in 1937 (R-I-48). The alleged drop in milk production did not occur until 1948 or 1949. This was followed by lameness (R-IV-638-639).

3 animals were condemned for tuberculosis (R-IV-632, 645). Mastitis has also been a problem (R-IV-647-

648). There has also been some difficulty with Bang's disease (R-IV-644-647).

(12) **Johnston.** Homer V. Johnston has lived on the property being occupied by him for over 60 years (R-V-954). He first noticed the conditions complained of in 1946 or 1947 (R-V-977).

At one time or another during the claim period animals in the herd have suffered from mastitis, acetone-mia, milk fever and bacteria dysentery (R-V-984, 987-989).

(13) **Raymond A. Arvidson.** This farm was purchased by these appellants in 1942 (R-I-52). They did not observe anything unusual about their cattle until 1948 (R-V-1103).

The cattle in this herd have suffered from Bang's disease. The herd was quarantined because of this in 1951 and remained under quarantine until 1953 (R-V-1105-1107).

#### **b. Whiteaker action.**

The proof also shows that the condition of the cattle of these appellants, if not normal, was attributable to causes other than consumption of forage containing a fluorine content above normal.

(1) **Whiteaker.** As noted previously, Dr. Garlic did not discover any animals in this herd which had

been injured by fluorosis. He visited the farm on July 11, 1951. Prior to doing so, he examined the herd's Dairy Herd Improvement Association production records. From this examination and said visit, he concluded (R-VIII-1917-1922):

1. The primary problem was sterility;
2. Several animals were suffering from hoof rot;
3. Several heifers were barren;
4. One cow had a pronounced endocrine imbalance;
5. Three cows were 14 years of age or over and too old for production; and
6. Culling of marginal producers had been neglected.

Mr. Whiteaker confirmed that some of the cattle had been suffering from hoof rot. He also testified that acetoneemia and milk fever had been encountered during the period for which damages are claimed (R-VI-1507-1508).

When Dr. Phelps examined some cattle from the herd on August 4, 1953, he observed several with quarters dried up because of mastitis (R-VIII-2302).

(2) **Rawnsley.** Dr. Phelps observed a large number of blood-sucking lice on one group of calves during the course of one of his examinations (R-IX-2315-2316). The

herd has had some mastitis (R-VI-1227). Some of the conditions observed are characteristic of malnutrition (R-VI-1229).

No pot line was operating at the Longview plant from June 5, 1947, to March 11, 1948 (R-I-147-148). The milk production of the Rawnsley herd during a portion of this period (from December 1, 1947, to November 30, 1948) averaged 364.7 pounds of butterfat per cow. The first year that records were being kept of production of this herd and during which the plant was in operation all the time ran from December 1, 1948, to November 30, 1949. The herd reached its highest production during this test year (Appellants' Brief p. 58). This production was the highest in Cowlitz County for a Dairy Herd Improvement Association herd of over 40 cows (R-VI-1236, 1241). This production was obtained during a period when the fume collection system had not been finally installed. The last fan and wash tower were placed in operation on May 14, 1949 (R-I-151). In the years that followed, as the amount of fluorides emanating from the plant decreased, the production of this herd also decreased, instead of increased. Obviously, a causal relationship between the operation of the plant and the condition of the cattle does not exist.

(3) **Goldsmith.** This herd's production increased each year from May 1, 1948, to April 30, 1952. Pro-



duction did drop during the 1952-1953 test year (supra, p. 68).

The herd has a history of Bang's disease, mastitis, hoof rot, pleurisy and gangrene (R-VI-1344, 1346, 1364, 1366-1377).

As noted previously (supra, p. 68), Mr. Goldsmith has followed the practice of purchasing animals from farms much nearer to the Longview plant than his. If the plant caused the conditions of which he complained, these animals would have been affected prior to his purchasing them.

There is evidence in the record that the cattle in this herd were receiving fluorine from sources other than pasture grass. A sample of mineral supplement (E. M. Peet Feed Co., Oakland, California) taken from this farm on October 19, 1953, contained 30 parts per million of fluorine (Ex. 1624).

(4) **Josephson.** The herd of these appellants was the highest producing of its size on D.H.I.A. test in Cowlitz County for the 3-year period ended on January 31, 1952 (Supra, p. 69). In 1952 production fell. This drop in production coincided with an unusually high incidence of Bang's disease. This trouble commenced in January, 1950, when one animal reacted positively to the test for this disease (R-VI-1424). In May of the



same year two additional cows were condemned as reactors. These three reactors were disposed of in 1950 (R-VI-1424-1426). In May, 1952, another animal was condemned (R-VI-1426). Two animals in addition to this one were designated as reactors in September, 1952 (R-VI-1427). Four additional animals out of ten tested reacted in November, 1952. Thus, seven out of thirteen had been condemned by late 1952. These were all sold to the yards (R-VI-1427-1428).

Bang's disease lowers milk production and causes breeding difficulties (R-IX-2321-2322). These are the very matters these appellants testified that their herd suffered from (R-VI-1396, 1398).

The Josephsons also complained of an abnormal type of diarrhea (R-VI-1409). Dr. Garlick attributed the condition in one animal to a bacterial infection suggestive of Johne's disease (R-VIII-1928).

**B. Even if appellee's operation of said plants was the proximate cause of injuries to appellants' cattle, the court may not award damages to appellants unless the gravity of the harm to appellants outweighs the utility of appellee's conduct.**

As will be hereinafter shown (Part III, p. 89 *et seq.*), claims of damages arising out of the settling of effluents

from an industrial plant upon surrounding properties sound in nuisance. However, the "nuisance" is not actionable unless unreasonable in character and intentional.

**4 American Law Institute, Restatement of the Law of Torts, (1939) Section 822, p. 226**

"The actor is liable in an action for damages for a non-trespassory invasion of another's interest in the private use and enjoyment of land if,

- (a) the other has property rights and privileges in respect to the use or enjoyment interfered with; and
- (b) the invasion is substantial; and
- (c) the actor's conduct is a legal cause of the invasion; and
- (d) the invasion is either
  - (i) intentional and unreasonable; or
  - (ii) unintentional and otherwise actionable under the rules governing liability for negligent, reckless or ultrahazardous conduct."

The Washington Supreme Court has considered the matter similarly.

*Riblet v. Spokane-Portland Cement Co.*, (1952) 41 Wash.(2d) 249, 248 P.(2d) 380, 382

Thus, even if appellee caused injury to appellants' cattle, remand for determining damages is not warranted unless appellee's conduct was both intentional and unreasonable.

There is nothing in the record to substantiate a claim that appellee in operating the two plants *intentionally* invaded the respective appellants' interests in the use and enjoyment of their properties.

Furthermore, when the utility of a person's conduct outweighs the gravity of the harm caused thereby, the invasion of an interest, even though intentional, is not so unreasonable as to constitute a nuisance.

**Powell v. Superior Portland Cement, Inc., (1942) 15 Wash.(2d) 14, 129 P.(2d) 536, 538**

In denying plaintiff's request that defendant be enjoined from interfering with plaintiff's use and enjoyment of his premises and for damage for injuries caused to plaintiff's property by dust from defendant's plant, the court stated:

"Appellant has practically made the community. It has invested a great deal of money in construction of its plant and has made provision for the maintenance of a necessary industry for many years to come. It has done everything that can be reasonably expected of it to reduce to a minimum the discomforts that are inseparable from such

industrial activity. To require appellant to respond in damages for its continuance, is a step toward destruction of appellant's business."

***Soukoup v. Republic Steel Corporation*, (Ohio, 1946) 66 N.E.(2d) 334, 341-342, 343**

Plaintiff brought an action at law for damages for a nuisance for injuries sustained from dust, dirt, grime, steam and vapors emitted from defendant's coke ovens and deposited upon plaintiff's property. Defendant had constructed the ovens in 1943 for the Defense Plant Corporation of America and operated them thereafter as lessee. In affirming a judgment for defendant, the court quoted with approval a comment under the Restatement of the Law of Torts, Chapter 40, Section 826, a part of which reads:

"\* \* \* Regard must be had not only for the interests of the person harmed but also for the actor and for the interests of the community as a whole. Determining unreasonableness is essentially a weighing process involving a comparative evaluation of conflicting interests in various situations according to objective legal standards.' "

And the court then said:

"By far the greater weight of authority supports the law of Nuisance, as stated in the Restatement of the Law of Torts, *supra*, and the supporting authorities above referred to."

**Booth v. Rome, W. & O. T. R. Co., (1893) 140 N. Y. 267,  
35 N.E. 592, 596**

Plaintiff's house was seriously injured from concussions caused by defendant's blasting of a new roadbed for its track. Plaintiff sought to recover damages from defendant for such injuries on the ground that the use of explosives by defendant constituted a private nuisance. In reversing a judgment for plaintiff, the court stated:

"It was not an act which, under all circumstances, would produce injury to his neighbor, as is shown by the fact the other buildings near by were not injured. The immediate act was confined to its own land; but the blasts, by setting the air in motion, or in some other unexplained way, caused an injury to the plaintiff's house. The lot of the defendant could not be used for its roadbed until it was excavated and graded. It was to be devoted to a common use; that is, to a business use. The blasting was necessary, was carefully done, and the injury was consequential. There was no technical trespass. Under these circumstances, we think, the plaintiff has no legal ground of complaint. The protection of property is doubtless one of the great reasons for government. But it is equal protection to all which the law seeks to secure. The rule governing the rights of adjacent landowners in the use of their property seeks an adjustment of conflicting interests through a reconciliation by compromise, each surrendering something of his absolute freedom so that both may live. To exclude the defendant from blasting to adapt its lot to the contemplated uses, at the instance of the plaintiff, would not be a compromise between conflicting rights, but an extinguishment of the right

of the one for the benefit of the other. The sacrifice, we think, the law does not exact. Public policy is sustained by the building up of towns and cities and the improvement of property."

***Rose v. Socony-Vacuum Corporation*, (1934) 54 R. I. 411,  
173 Atl. 627**

Plaintiff, the owner of a large farm, sought to recover damages from defendant for a nuisance. Plaintiff alleged that defendant had polluted his waters in discharging waste products from its refinery and that a number of his hogs and hens had died as a result. In the course of its opinion the court stated on pages 631-632:

"It is an unavoidable incident of the growth of population and its segregation in restricted areas that individual rights recognized in a sparsely settled state have to be surrendered for the benefit of the community as it develops and expands. If, in the process of refining petroleum, injury is occasioned to those in the vicinity, not through negligence or lack of skill or the invasion of a recognized legal right, but by the contamination of percolating waters whose courses are not known, we think that public policy justifies a determination that such harm is *damnum absque injuria*."

***East St. Johns Shingle Co. v. City of Portland*, (1952) 195  
Or. 505, 246 P.(2d) 554**

Two actions were commenced against the City of Portland for damages caused by dumping raw sewage



into a slough. In affirming judgment for defendant, the court stated on page 562:

“The law recognizes that the nuisance claims of private owners must at times yield to public interest and convenience.”

**Prosser on Torts, Section 73, page 580**

“The law of private nuisance is very largely a series of adjustments to limit the reciprocal rights and privileges of both. In every case the court must make a comparative evaluation of the conflicting interests according to objective legal standards, and the gravity of the harm to the plaintiff must be weighed against the utility of the defendant’s conduct.”

**4 Restatement of the Law of Torts, Section 826, page 241**

“An intentional invasion of another’s interest in the use and enjoyment of land is unreasonable \* \* \* unless the utility of the actor’s conduct outweighs the gravity of the harm.”

***Amphitheaters, Inc. v. Portland Meadows*, (1948) 184 Or. 336, 361-362, 198 P.(2d) 847**

In denying plaintiff’s claim for damages for a nuisance, the court stated:

“It is not our intention to decide the case upon authority alone, divorced from reason or public policy. The photographic evidence discloses that the properties of the respective parties are not in a residential district, and in fact are outside the city limits



of Portland, and lie adjacent to a considerable amount of unimproved land. Neither party can claim any greater social utility than the other.”

**C. The utility of appellee’s conduct outweighs the gravity of the harm, if any, to appellants.**

The evidence shows that if appellee caused an injury to appellants’ cattle, the utility of appellee’s conduct outweighs the gravity of such injury to appellants. Reference has previously been made to the evidence on this point, together with the determination of the trial court concerning the same ,Part.I-C, p. 24 *et seq.*)

### III.

**The claims of appellants were subject to a two year limitation period. Even if appellants’ claims were subject to a three year limitation period, remanding of these actions to the trial court would not be warranted.**

As previously indicated (*supra*, p. 6), the trial court in connection with the pre-trial proceedings in these actions determined that the two year limitation period specified in RCW 4.16.130 (R.R.S., Section 165) was applicable to the claims being asserted herein.

The subject was considered by the court again in its written decision, and the same conclusion was arrived at (R-I-97-100).

Thereafter, the court entered conclusions of law in the *Arvidson* case which provided in part (R-I-102-E, 102-F):

“II. A complaint which alleges that gases, fumes and particulates from an aluminum reduction plant settling upon properties in the vicinity of said plant have caused damage to the owners or occupants of said properties sound in trespass on the case, and not trespass, under the substantive law of the state of Washington. \* \* \*

“IV. Defendant did not trespass upon plaintiffs properties from December 7, 1948, to November 4, 1953, because under the substantive law of the State of Washington the settling of gaseous and particulate fluorides from an aluminum reduction plant upon surrounding properties does not result in a trespass.

“V. The two year period of limitation provided for under R.C.W. 4.16.130 (Rem. Rev. Stat. 165) is applicable to plaintiffs' claims for damages to real and personal property.”

and similar conclusions of law in the *Whiteaker* case (R-I-208-C, 208-D)

**A. The claims of appellants were subject to a two year limitation period.**

The cases at bar were instituted in the state of Washington. Consequently, they are subject to the

applicable Washington statute of limitations. The law of the forum controls as to the limitations of actions.

53 C.J.S., Limitation of Actions, Section 27, p. 970

RCW 4.16.080 (R.R.S., Section 159) provides in part as follows:

“Within three years:

(1) An action for waste or trespass upon real property;

(2) An action for taking, detaining, or injuring personal property, including an action for the specific recovery thereof, or for any other injury to the person or rights of another not hereinafter enumerated; \* \* \*

RCW 4.16.130 (R.R.S., Section 165) provides:

“An action for relief not herein otherwise provided for shall be commenced within two years after the cause of action accrued.”

Appellants contend that RCW 4.16.080 (1) (R.R.S., Section 159 (1)) applied to their claims for injury to real property and RCW 4.16.080 (2) (R.R.S., Section 159(2)) applied to their claims for injury to personal property.

# **1. RCW 4.16.130 Applied to Appellant's Claims of Damage to Real Property.**

Appellants alleged in their complaints that particulates from appellee's plants were deposited upon appellants' real properties (R-I-4, 120). They contend that by reason of such allegation they pleaded a trespass as distinguished from trespass on the case (Appellants' Brief, p. 2). They further contend that they sustained the burden of proving that particulate fluorides settled upon appellants' real properties. They conclude that by having pleaded and proved a trespass they were entitled to a three year limitation period and not a two year period.

The settling of air-borne gases, fumes or particulates upon appellants' real properties could at the most have constituted only an interference with the use and enjoyment thereof and not an interference with possession. Any injuries sustained by appellants thereby could only be the consequential results of lawful acts performed by appellee upon its own property. Such an indirect invasion may under certain circumstances constitute a nuisance. It does not constitute a trespass. In order to constitute a trespass the injury must be immediate.

Joyce, Law of Nuisances (1906), p. 27

High on Injunctions (3rd ed., 1890) §739, p. 56

63 C.J. 889, Trespass, §4

The settling of gases, fumes and particulates emanating from an aluminum plant upon real property in the vicinity of said plant does not constitute trespass.

***Perrin v. Aluminum Company of America and Thayer* (W.D. Wash., S.D., 1950) Civil No. 1,352**

This case is referred to in the written decision of the trial court (R-I-98). Plaintiffs filed an action in June, 1950, in the Superior Court of the State of Washington for Clark County to recover damages for injuries to gladiolus bulb operations conducted by plaintiffs on leased property during the 1947 growing season. Plaintiffs did not characterize defendant's operation of its Vancouver aluminum plant as a nuisance and referred in their complaint to trespass statutes. After removal to the United States District Court, defendant moved to dismiss the action on the ground that the pleadings disclosed that the action was barred by the two year statute of limitations. When the matter came on for hearing before Judge Charles H. Leavy on November 20, 1950, he allowed said motion on the ground that the three year statute of limitations relating to trespass to real property and injuries to personal property was not applicable because no trespass had occurred. He stated in part:

“The Court found in the Fraser case, and I see no reason why I should reverse that position in this

case, that the activity itself was a perfectly legitimate and lawful activity, in constructing this aluminum plant to engage in reducing alumina to aluminum; the fumes carried by winds to the land of this plaintiff and others were consequential rather than purposeful and were incidental rather than intended; and that made the case, in my mind, one of trespass on the case."

The Fraser case to which Judge Leavy referred was

***Fraser v. Aluminum Company of America* (W.D. Wash., S.D., 1950) Civil No. 1,223**

in which he had stated during pre-trial conference on May 5, 1950, that the two year statute of limitations was applicable in a similar action commenced to recover damages for injuries to trees, crops, vegetation and domestic animals.

The Washington Supreme Court does not regard the settling of air-borne gases, fumes or particulates upon real property as a trespass or invasion of the same.

***Riblet v. Spokane-Portland Cement Co.* (1952) 41 Wash (2d) 249, 248 P. (2d) 380**

Plaintiffs sought to recover for damages to their residential property caused by cement dust cast there upon as a result of the operation of a cement manufacturing plant by defendant. In reversing judgment for



defendant, the court stated one of the issues to be (p. 380):

“Is the two-year statute of limitations, Rem. Rev. Stat. § 165, RCW 4.16.130, or the three-year statute of limitations, Rem. Rev. Stat. (Sup.) §§ 159 (1) and 159 (3), RCW 4.16.080 (1) and (3), applicable?”

The court held that the evidence was sufficient to support a cause of action based upon nuisance and that the plaintiffs' claims were subject to the two year statute of limitations (RCW 4.16.130) and not the three year statute of limitations (RCW 4.16.080). The court thus in effect held that activity such as that complained of sounded in nuisance, and not trespass.

***Weller v. Snoqualmie Falls Lumber Co. (1930) 155 Wash. 526, 285 Pac. 446***

In considering the statute of limitations applicable to an action to recover for injury from cinders, soot, ashes and charred materials carried by prevailing winds from defendant's sawmill to plaintiffs' property, the court stated on page 448:

“\* \* \* It was the operation of the sawmills that caused the damage. The injury to the farm was in the nature of a continuing nuisance, and as stated in *Island Lime Co. v. Seattle*, 122 Wash. 632, 211 P. 285, 286: ‘We are firmly committed to the rule

that one suffering from an injury in the nature of a continuing nuisance may recover damages as often as he brings action therefor. \* \* \* ”

***Park v. Northport Smelting & Refining Co.* (1907) 47 Wash. 597, 92 Pac. 442**

Plaintiff sought damages for the destruction of growing trees by reason of fumes and smoke from defendant's smelter. The court permitted recovery for damages accruing within two years prior to the commencement of the action, and not within the three year period which the statute of limitations provides for trespass to real property.

***Sterrett v. Northport Mining & Smelting Co.* (1902) 30 Wash. 164, 70 Pac. 266**

Plaintiff sought to recover for damages to his lands, plants and trees caused by the precipitation of fumes and smoke from defendant's smelter. The court stated on page 270:

“\* \* \* It is lawful to operate a smelter. No one has a right, however, to pursue a lawful business, if thereby he injures his neighbor, without compensating such for the damages actually sustained. This action may be sustained also on the grounds of a continuing nuisance. *Doran v. City of Seattle*, 24 Wash. 182, 64 Pac. 230, 54 L. R. A. 532, 85 Am. St. Rep. 948.”

***Suter v. Wenatchee Water Power Co.* (1904) 35 Wash. 1,  
76 Pac. 298**

This was an action to recover for damages to land caused by negligent construction and maintenance of an irrigation canal. In reversing judgment for plaintiffs on the ground that the two year statute of limitations was applicable, the court stated on page 300-301:

“\* \* \* We must therefore conclude that, when our lawmakers provided a three-year limitation for actions for ‘trespass upon real property,’ they meant to include only such recovery as could have been had through the action of trespass at common law. It follows that actions under our present procedure, through which relief is sought for injuries to land, and which could have been had at common law through an action on the case only, are governed by our two-year statute of limitations hereinbefore cited.”

The similarity between the quoted portion of the opinion and Judge Leavy’s remarks in the *Perrin* case (supra, pp. 93, 94) is striking.

The foregoing decisions are in accord with the holding of other courts on the same point. In the following cases relief sought against the discharge of smoke, cinders and like substances was considered to be an action sounding in nuisance and not one of trespass upon adjoining property:

**Bartlett v. Grasselli Chemical Co. (1922) 92 W. Va. 445,  
115 S.E. 451**

Plaintiff, a farmer, sought to recover damages from defendant, the owner and operator of a zinc reduction plant, for injuries to cattle and land resulting from fumes, gases and dust emitted from defendant's plant and borne by air currents to plaintiff's property. In reversing judgment for plaintiff, the court stated on page 455:

"The injury in respect of which this action was brought is consequential and flows from a purely private nuisance. There has been no trespass upon the plaintiff's lands. The furnaces and business working the injury are located and conducted upon the defendant's own land. \* \* \*"

*Northern Indiana Public Service Co. v. W. J. & M. S. Vesey* (1936) 210 Ind. 338, 200 N. E. 620, 627 (soot and dirt from gas plant)

*Columbian Carbon Co. v. Tholen* (Tex., 1947) 199 S. W. (2d) 825 (carbon black and soot from carbon black plant)

*Bourne v. Wilson-Case Lumber Co.* (1911) 58 Or. 48, 51, 113 Pac. 52 (ashes, cinders and sawdust)

*Lindley v. Hyland* (1943) 173 Or. 93, 144 P. (2d) 295 (shavings and sawdust from planing mill)

The authorities which are cited in Appellants' Brief are not in conflict with the authorities to which reference has just been made. Appellants rely (p. 97) upon

certain remarks by the Honorable James Alger Fee in denying a motion to transfer the *Arvidson* action to the United States District Court for the District of Oregon (reported at 107 F. Supp. 51). Concerning this language, the trial court stated (R-I-96):

“Early in the proceedings the removal of the actions to the Oregon District Court on the ground of *forum non conveniens* was sought by defendant. The matter was extensively briefed and argued before then District Judge James Alger Fee sitting in this court by assignment. In an opinion reported at 107 Fed. Sup. 51, Judge Fee, on the allegations of the complaints and upon the oral statements of plaintiffs’ counsel during the hearing on the motion for removal, for the limited purposes of that motion accepted plaintiffs’ contention that the actions sounded in trespass. Removal was denied for several reasons but principally because under Oregon Supreme Court decisions that court has held itself without jurisdiction to deal with actions for trespass on lands outside of Oregon. There is no indication in Judge Fee’s opinion or elsewhere in the record that consideration was given to the Washington law as to whether actions of the nature of the present cases sound in trespass rather than trespass on the case. Washington law was neither directly nor indirectly considered, stated or applied in the removal decision. The parties agree that under *Erie R. C. v. Tompkins*, 305 U.S. 673, on substantive issues the cases must be decided according to Washington law.”

Appellants contend in their brief (p. 94) that Judge Fee’s remarks on trespass became the “law of the case.”

This is not so. The doctrine of the law of the case is a rule of practice and not a principle of substantive law.

***Messinger v. Anderson* (1912) 225 U. S. 436, 56 L. Ed. 1152, 1156**

“\* \* \* In the absence of statute the phrase, ‘law of the case,’ as applied to the effect of previous orders on the later action of the court rendering them in the same case, merely expresses the practice of courts generally to refuse to reopen what has been decided, not a limit to their power. \* \* \*”

*United States v. Fullard-Leo* (C.C.A. 9th, 1946) 156 F. (2d) 756, 757; Affirmed (1946) 331 U.S. 256, 91 L. Ed. 1474

The judge before whom later proceedings are had in a case is not absolutely bound to follow the rulings of the judge before whom the earlier proceedings were had.

*Appeal of Beardsley* (1910) 83 Conn. 34, 75 Atl. 141, 142  
21 C.J.S. Courts, Section 195c, p. 341

An interlocutory order which merely decides some point or matter essential to the progress of the case, and collateral to the issues therein, is not binding as the law of the case.

*Polson Logging Co. v. United States* (C.C.A. 9th 1947) 160 F. (2d) 712



The case of

*Welch v. Seattle & Montana R. Co.* (1909) 56 Wash.  
97, 105 Pac. 166

is cited by appellants (p. 94-95) as demonstrating that "damages are presumed from the breaking of the close." This may be true. However, appellants have failed to demonstrate that in these actions the close has been broken as a matter of law. In fact, the authorities previously cited show that the contrary is true (*supra*, p. 93 *et seq.*)

The next case cited by appellants (p. 95-96),

*Gray v. Harris & Son* (1939) 200 Wash. 181, 93  
P. (2d) 385,

is in support of the proposition that, "if defendant breaks the close, liability is absolute." However, as a matter of law the close is not broken by the settling of particulates from an aluminum plant upon real properties.

The case of

*Clark Lloyd Lumber Co. v. Puget Sound & C. Ry. Co.* (1916)  
92 Wash. 601, 159 Pac. 774

is cited (p. 97) as indicating that "the deposit of solids presently invades a property right whenever the

damage was done, and irrespective of the amount of damage." There, the court held that defendant's blasting of stumps to which plaintiff's boom was anchored and the casting of waste, rock and dirt into a cove constituted a trespass subject to the three year period of limitations. After noting the difference between a lawful act resulting in a consequential injury and an unlawful act resulting in an immediate injury, the court held that the activity complained of resulted in an immediate injury and was wrongful in its inception because it violated an agreement between the parties (p 776):

"The blasting of the stumps and the waste of the debris over the bank and into the cove was an immediate injury. The damages which may result do not have to be immediate to sustain an action under section 159. The statute does not concern itself with the moment of time when the damage actually accrues or the amount of the damage. They may continue and grow in volume. It concerns itself only with the character of the trespass. If a thing lawful to be done results in damage, the case falls under the two-year statute. If the thing done is wrongful in its inception to the extent that it presently invades a property right, the three-year statute applies. \* \* \*

"In the instant case, appellant did not have 'a lawful right to construct as it chose.' Its rights are defined in the contract which clearly implies the preservation of respondent's property for the use intended, as well as its own right to build its railroad. In the Suter Case, no damage would have resulted from the primary act of building the canal

The damage complained of was the result of its after negligence in filling the canal beyond its capacity. But here the damage, if any, came from a physical act touching the property of respondent, and theoretically, at least, was a damage in its inception."

Here, appellee has been engaged in the legitimate activity of reducing aluminum. The alleged deleterious effects of this activity are consequential and not immediate. Appellants rely (p. 97) upon the rule set forth in

**I American Law Institute, Restatement of the Law of Torts  
(1934) Section 158**

The illustrations to said rule indicate that the rule was not intended to apply to an indirect invasion resulting as a consequence of lawful acts such as the deposit of effluents upon property in the vicinity of an industrial plant.

Appellants also cite (p. 98) the case of

**Ure v. United States (D. Or., 1950) 93 F. Supp. 779**

This case involved flooding caused by the breaking of an irrigation canal. Furthermore, the decision indicated (p. 790) that the court was applying the law of the State of Oregon, and not the law of the State of Washington, which has previously been set forth.

The cases of

***Kerr et al v. Reynolds Metals Co.* (D. Or., 1950) Civil No. 4,123, and *McCallister et al v. Reynolds Metals Co.* (D. Or., 1950) Civil No. 4,418**

which appellants also rely upon (p. 99), are likewise of no assistance. In the remarks which he made in denying defendant's motion for an involuntary nonsuit, Judge Fee made no effort to distinguish between the law of trespass as determined by the courts of the State of Oregon and as determined by the courts of the State of Washington. Thereafter, Judge Fee stated in a written opinion dated December 11, 1950 (p. 5), that, *if* he accepted appellants' theory that the actions were at law for trespass, he could not award damages to the Washington appellants because of lack of jurisdiction. He, therefore, did not expressly determine what the Washington law on this point was.

The citations (p. 99) to

87 C.J.S., Trespass, Section 13, and  
52 Am. Jur., Trespass, p. 844

are likewise of no value. There is no indication that the rules stated therein are to be applied to the settling upon real properties of minute materials emanating from an industrial plant being lawfully operated.

## 2. RCW 4.16.130 Applied to Appellants' Claims of Damage to Personality.

Appellants also contend in their brief (pp. 100-104) that the claims for damages arising from asserted injury to their personal property are subject to a three year period of limitations. However, claims for injuries to personal properties are subject to the same limitation period as that applicable to claims for injuries to real properties. The *Perrin* case, previously referred to (p. 93) is directly in point. There, plaintiffs filed an action in June, 1950, to recover damage for injuries to gladiolus bulb operations conducted by plaintiffs on leased property during the 1947 growing season. Crops growing upon leased lands are personal property.

*Brown v. Jones* (1929) 130 Or. 424, 433, 278 Pac. 981  
8 R.C.L. 357

The court upon motion dismissed the action as barred by the two year Washington statute of limitations.

In

***Northern Grain & Warehouse Co. v. Holst* (1917) 95 Wash. 312, 163 Pac. 775**

the court held that the two year statute of limitations applied in an action to recover damages suffered by plaintiff because defendants failed to obtain a bond

from a defaulting warehouseman. RRS § 159 (2) (RCW 4.16.080 (2)) provides as follows:

“Within three years: \* \* \*

“An action for taking, detaining, or injuring personal property, including an action for the specific recovery thereof, or for any other injury to the person or rights of another not hereinafter enumerated;”

In response to plaintiff's contention that R.R.S. § 159 (2) applied and not RRS § 165 (RCW 4.16.130) the court stated, on pages 776 and 777:

“If full effect be given to appellant's argument, section 165 has no force or application in the law of this state and is a useless and nugatory enactment, for it is contended that the language of subdivision 2 of section 159 embraces all causes of action in which it is sought to recover for any injury ‘to the person or rights’ of the plaintiff. No cause of action arises in law until the plaintiff's person or property rights have been invaded. It is manifest that this subdivision, if given appellant's construction, would apply to all causes of action irrespective of their nature, and would embrace those causes of action provided for in other subdivisions of section 159 as well as those provided for in section 165 and other limitation statutes. That this was not the intention is manifest. Each subdivision of section 159 was intended to apply to particular forms of action which it was therein sought to enumerate, and section 165 was intended as a blanket provision to cover all other causes of action not specifically enumerated in prior sections. *This being so, we must read subdivision 2 as applying only to certain direct invasion*



*of personal or property rights not otherwise 'hereinafter enumerated,' and as not including those numerous causes of action recognized by the law, among which must be included the one here pleaded if existing at all where the law imposes a liability because of indirection or default. The cause of action here pleaded is indirectly based upon the failure of public officials to perform duties imposed by law. It is not based upon any direct act of these officials injuring appellant's personal property or property rights."* (Emphasis added.)

The distinction noted by the court between direct and immediate and indirect and consequential with respect to the applicability of sections 159(2) (RCW 4.16.080 (2)) and 165 (RCW 4.16.130) is the same distinction noted by this court in the *Perrin* and *Fraser* cases and by the Washington Supreme Court in *Clark Lloyd Lumber Co. v. Puget Sound & C. Ry. Co.*, supra, p. 107.

Neither is

***Luellen v. City of Aberdeen* (1944) 20 Wash. (2d) 594, 148 P. (2d) 849**

of assistance to appellants. In that case plaintiff sought an adjudication that his removal as police captain was illegal. The court held (p. 855) that the action was subject to the three-year period of limitations set forth in RCW 4.16.080(2) (R.R.S., § 159 (2)) because of a *direct* invasion of an *intangible* property right. There is no

similarity between the facts in that case and those in the case at bar. Furthermore, the personal property allegedly injured here is *tangible*, and not intangible.

In

***Irwin v. J. K. Lumber Co.* (1922) 119 Wash. 158, 205 Pac. 424**

plaintiff sought to recover for damages suffered when defendants constructed a trestle and booming ground in the Columbia river destroying the value of the same for plaintiff's licensed fishing operations. The court held the action to be barred by the three year statute of limitations RCW 4.16.080(2) (R.R.S., § 159(2) ) whether it was (1) an action in tort to recover damages for trespass to plaintiff's *personal* property (fishing license and location); or (2) an action to recover compensation for property damaged without condemnation proceedings. This holding was proper in view of the fact that the invasion of plaintiff's property was direct in character, not consequential, and thus of the type to which the three year limitation period is applicable.

That RCW 4.16.080 (2) (R.R.S. § 159(2) ) applies only to *direct* invasions of personal or property right has received additional emphasis from the Washington Supreme Court.

**Noble v. Martin (1937) 191 Wash. 38, 70 P. (2d) 1064, 1068**

“The suggestion that the action falls within subdivision 2 of section 159 is equally untenable. This subdivision provides as follows: ‘An action for taking, detaining, or injuring personal property, including an action for the specific recovery thereof, or for any other injury to the person or rights of another not hereinafter enumerated.’

“It was clearly and definitely held in *Northern Grain & Warehouse Company v. Holst*, 95 Wash. 312, 163 P. 775, that this statutory subdivision applies only to certain direct invasions of personal or property rights. Approval of that decision was later expressed in *Constable v. Duke*, 144 Wash. 263, 257 P. 637, and it must be regarded as stating the settled law of the state.”

**B. Unless the Court finds that Appellants were Injured as a Result of the Operation of the Plants, Determination of the Applicable Limitation Period Is Moot.**

The only reason for the court to consider the applicable limitation period would be in the event it decided the remand was warranted because of its decision on points I and/or II. It has already been demonstrated that remand as to these two points is not warranted. Any question as to the applicable limitation period is therefore moot.

### Conclusion

Appellants failed to prove any trespass warranting remand of these actions. Appellants likewise failed to prove actionable injury to their cattle. The trial court correctly applied the two year limitations period to appellants' claims. The judgments of the trial court should be affirmed.

KING, MILLER, ANDERSON, NASH & YERKE,  
FREDRIC A. YERKE, JR.,  
926 American Bank Building,  
Portland 5, Oregon.

HENDERSON, CARNAHAN,  
THOMPSON & GORDON,  
LINDSAY L. THOMPSON,  
1410 Puget Sound Bank Building,  
Tacoma 2, Washington,  
*Attorneys for Appellee.*

WALTER L. RICE,  
W. TOBIN LENNON,  
*Of Counsel for Defendant,  
Reynolds Metals Building,  
Richmond 19, Virginia.*